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Part I

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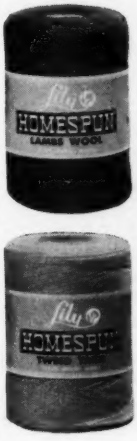

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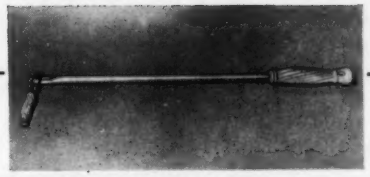

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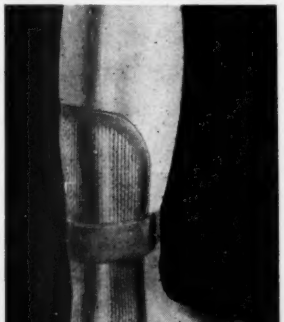

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HOME MANAGEMENT FOR THE DISABLED

JOAN R. HOSSACK, O.T.R.

INTRODUCTION

It has been generally agreed that the goal of rehabilitation is to assist the disabled person to achieve the maximum physical, social, emotional and economic independence of which he or she is capable, and that this goal can best be achieved through the combined services of a group of professions working interdependently as a rehabilitation team. Each team member functions far more effectively in conjunction with the other members than when alone, and in order to bring about optimum working relationships it is necessary, initially, for each member to have a clear understanding of his own functions and limitations, both as an individual service and as a team member.

Occupational therapy can play a vital role in rehabilitation only when the therapist adopts and lives with a practical and realistic concept of the scope of his profession. Stereotyped arts and crafts are important as treatment media, but they constitute only a part of the treatment indicated and it is essential that the total situation be considered. What kind of person is the patient? Has maximum physical independence been achieved? To what way of life will he or she be returning? What are the general goals of the patient? What can occupational therapy contribute towards the achievement of these goals? Clearly, each patient will present a new set of problems, and in order to meet these effectively, both the occupational therapist and his treatment program must be flexible.

As the patient gradually approaches the time to leave the protecting walls of the treatment setting and to begin again to take an active part in family and community living, many very real problems come to the fore. What will people say when they see me? Will they want to have me around? Will they let me do things for myself? Will I be able to work? Such questions are asked every day, and the answers vary with everyone who asks them. Some problems can be overcome at least in part through the use of practical occupational therapy, particularly when it is coupled with the constant support of and interpretation by the social worker.

For the disabled woman, the prospect of resuming household activities and responsibilities can cause much apprehension. She is returning to what has been her former job, but in many instances she no longer possesses her former physical strength and skill. She may fear failure, or that the work involved will be detrimental to her present physical condition. The referring physician can be very helpful in this situation by clearly defining the patient's physical capacities and limitations, and also by encouraging her to participate in these activities. A carefully planned program in household activities, geared to the individual, can do much to enable her to become again an effective household manager. The timing of the introduction of this program is important and varies with the individual. Some patients are able to accept their disability at least superficially, and to compensate for it far more quickly than others, and for them the subject arises naturally quite early in their treatment program. Others are better motivated when they are faced with a more immediate prospect of resuming home responsibilities. Group sessions where patients may learn new methods and ways of doing things from others who have already adjusted to a similar situation are valuable. However, it cannot be stressed too strongly that these activities must be carried on an individual basis and that they are directly correlated with individual motivation.

ENERGY SAVING METHODS

The application of job analysis and time and motion study has enabled many people to save energy and to function more effectively, both in industrial situations and at home. The principles of work simplification, stressing the practical approach to activity, with the elimination of unnecessary steps and procedures, are basic to good home management whether or not the homemaker is disabled. The majority of the patients

with whom energy saving planning will be the most important factor are those suffering from cardiac conditions, tuberculosis, arthritis, old age, etc. Many multiple sclerotic patients can also benefit from this type of thinking but their needs must always be assessed on an individual basis as the symptoms vary from patient to patient. Before constructive planning can be begun, the individual situation should be defined in terms of the physical layout of the home (individual kitchen sketches are most helpful), the responsibilities involved, and the relationship of the patient to the others in the family. It is also necessary that the therapist establish and maintain good rapport with the patient in order that the patient may come to understand the purpose of the program, which is to enable the patient to develop self-reliance and to utilize energy saving methods most effectively. Interviews with the patients individually and household activity charts and lists are useful in assessing the situation, but it must be kept in mind that the charts are only a signpost and are not to constitute the basis for final conclusions. Many questions will arise: What are the family's needs? What can the patient do safely? What is to be avoided? If it is impossible for the patient to cope with certain tasks, who will do them? The relationship of the other members of the family to the patient is most important, and in this connection much benefit can be derived through the joint efforts of the social worker and the occupational therapist. Frequently it is wise for the husband and perhaps other relatives to visit the patient at the rehabilitation center so that they may see what she is able to do, and what limitations still exist. A list of changes or additions to be made in the patient's home will help to give a positive working plan and course of action. A weekly schedule of responsibilities allotted to other members of the family can do much to eliminate their feelings of excessive responsibility for, and over-protection of, the handicapped person. There will likely be some things which the housewife will be unable to do, or will have difficulty in doing, and the knowledge that someone else is taking responsibility for them will help in her eventual adjustment to her limitations. Similarly, the other members of the household will know that they are not asking the disabled homemaker to do things of which she is not physically capable. However, it should be emphasized that the housewife should be encouraged to do as much as possible herself, without assistance, even though another member of the family might be able to work much more quickly.

It should be emphasized that good posture on the part of the patient is essential and that an occasional change of position is necessary. A bright, cheerful, well lighted, well ventilated working environment, and the use of proper working heights, can do much to reduce general strain and fatigue, whether or not the homemaker is disabled. The question of working pace should be considered and although it may be reduced considerably with the handicapped worker, it is still possible to develop a rhythm in working. Working to music can help to achieve this end, and the more relaxed the worker is, the more effectively she will be able to function. It should be emphasized that comfortable, well-fitting clothing is necessary in housework just as suitable clothing is worn in other activities.

Housework organization is energy saving and should be considered very carefully. Flexible work plans on a daily, weekly and seasonal basis should be drawn up by the therapist and patient together. These plans should include all the jobs for which the patient will be responsible and it should be arranged so that the heavy jobs are scattered throughout the week rather than occurring all in one day. Long tasks can be broken up over several days so that each day will be varied and as interesting as possible. These work plans should include personal activities both in the home and on a community basis, and although they act as a guide they should be elastic enough to allow for unexpected changes in routine. A small desk or table to be used as a "planning center" can be helpful to the housewife in organizing and planning. The use of one-dish meals as casseroles and meat loaves, and preprepared dishes can lighten the cooking routine considerably. Careful meal planning can enable the homemaker to cook in quantity and to be prepared for culinary emergencies. Instruction in home economics is not usually the purpose of the program but many women lack imagination in cooking and require outside stimulation to make their meals attractive. Sample menus, a good recipe book, current food magazines, and the use of a personal looseleaf notebook can help to remedy this situation. Visual aids such as slides, movies and television programs which are geared to the housewife will also provide many ideas and suggestions which can readily be put into effect by the disabled homemaker.

It should be stressed here that many disabled women have formerly been very rigid in their housework methods. They have learned to do things one way and have perhaps never considered any other way of doing them. Their illness may have been a great shock to them and when they have found themselves unable to use their former work methods they have either lost hope or have been unable to try out new methods. Frequently it may require a number of group sessions and individual discussions before the patient even begins to be able to move toward any change in method or routine. She should try first her old

method of doing a task and if it is no longer successful, then a substitution of working tools and/or method is indicated. The rehabilitation setting gives her an opportunity to practice her new skills before trying them out at home. Following this, it is wise for the patient to try out one small operation at a time at home on the basis of "homework," and gradually to undertake more ambitious tasks, rather than become panicky when suddenly faced with a large job. The approach is primarily on a "first things first" basis.

The arrangement of household equipment and kitchen appliances should be stressed, and it must be considered on an individual basis in terms of available equipment and space. It is possible to arrange even the most ancient kitchens in such a way that they become good working units. For example, with cardiac cases where excessive reaching and bending are contra-indicated, the storing of both equipment and supplies at "the point of first use" cannot be overemphasized. If the cooking utensils are stored near the stove and those used for baking at the place where the preliminary baking operations will be carried out, many steps will be saved. In the ordinary kitchen supply cupboard it is possible to store the items that are used most towards the front of the cupboard where they will be more readily available. The use of racks on doors, drop shelves, narrow adjustable shelves, pegboards for hanging utensils, vertical storage space and convenient electrical outlets can all contribute to efficiency. Gravity should be utilized where possible as with a laundry chute or gravity feed flour bin. Unused articles should be discarded and unused space utilized. Equipment, such as an ironing board, vacuum cleaner, small table or chair, can be mounted on casters and thus moved about much more easily. It is wise for the housewife to read fully the directions for any appliances she may own so that she may utilize them to their best advantage. If it is possible to purchase any new equipment, a light durable product should be chosen. The housewife may not be able to lift heavy equipment which is already in use, but it is often possible for her to slide it from one place to another.

THE ONE-HANDED HOUSEWIFE

The most frequent diagnoses in this category are arm amputations, hemiplegia and poliomyelitis. With the person who is physically normal, one hand, usually the right, acts as a leader with the other hand assisting. Frequently in hemiplegia and also in amputations, the patient suddenly finds herself with the leading hand completely or partially disabled. She is in a position where she must learn to use the remaining hand as a leader and her success with this will depend not only on her own skill and ingenuity but on the degree of handedness which existed prior to the illness or accident. With an amputee there is a choice of using the hook as a counterpart to the other hand or only as an assistant, but with a hemiplegic there is frequently no choice. The development of new skills in the remaining hand may require long hours of practice, and the basic motivation and mood swings of the patient will have much effect on the rate of progress. This applies especially to the development of fine hand skills such as writing. It is particularly difficult for those patients who have always been perfectionistic and who must learn to concentrate on the essentials rather than the details of a project.

With hemiplegic patients there is also an ambulation problem which will affect balance and ease of locomotion. This can be overcome in part through good kitchen planning, with emphasis on working surfaces at which the patient may sit comfortably as she works. Another problem arises with hemiplegic patients who are aphasic. Their ability to understand and carry out directions may be seriously impaired and this, coupled with severe emotional involvement may make it very difficult for the housewife to learn new methods or even to carry out simple, familiar tasks. It must always be kept in mind by both the therapist and the patient, that it will take practice to become a skilled worker again and that, of necessity, this work will go more slowly than formerly.

Many household activities normally done with two hands can be accomplished with one hand alone; for example, cracking an egg, chopping vegetables. There are many time-saving devices geared to the normal person which can be successfully used by the one-handed person. Mixing bowls with suction base, tongs, kitchen shears, potato ricers, chopping devices, orange squeezers, graters and slicers, wall type can-openers, push-type egg-beaters, pots with drainage lids that may be clamped on, "lazy susan" revolving shelves, long-handled dustpans, meat and food grinders, canisters with hinged or level lids, garbage tins with foot controls, shopping carts, cellulose sponge mops with self-wringing devices attached, suction base brushes for washing tumblers, squeeze action flour sifters, clip-on aprons are all applicable. Vegetable peelers can be mounted on the wall, or a simple cutting board with two pins or nails protruding will hold vegetables securely for peeling or cutting purposes (the best results are obtained with a sharp knife). Electric mixers, pressure cookers, freezers, dishwashers, laundromats and refrigerators can help considerably with this type of problem. However it may be financially impossible for the patient to install this type of equipment and it is therefore essential that she be trained to work with the tools which she has

at home. Many small but invaluable changes can be made by the average home carpenter.

The use of prepared foods, frozen foods, drop cookies, sliced bread, vegetables which can be baked or cooked unpeeled, will help to increase the efficiency of the one-handed worker. Batters and sauces can be mixed in pitchers, rather than bowls, for easy pouring and sometimes combinations of ingredients can be shaken in a jar rather than stirred.

Dishwashing can be simplified considerably by soaking the dishes immediately after use and, following washing, scalding them to drain dry. The one-handed housewife should be especially careful when handling hot dishes, and should be encouraged to use a potholder or oven glove.

Laundering is another aspect of housework which will need reorganizing. It is usually possible for the one-handed housewife to cope with hand laundry, and the use of a lightweight iron, and adjustable ironing board, cord minder, lightweight folding laundry cart or a basket on a table on casters will increase her efficiency. If a washing machine has no draining or filling device, a simple siphon hose is adequate. Hanging wet garments can be a problem but lowered laundry lines and the proximity of a laundry cart can do much to overcome it. It is usually recommended that heavy articles such as sheets and blankets be sent out to a commercial laundry or that someone else in the household undertake the responsibility of caring for them. Ironing with one hand is quite possible by using the other hand to hold the garment in place, but as formerly stated, the work will go slowly and allowance must be made for this in the work plan. It is wise to start with simple pieces such as handkerchiefs or napkins, and gradually work up to the more difficult task of ironing shirts. The use of paper napkins, plastic place mats and fabrics which do not require ironing, such as nylon, orlon and dacron, can lighten the laundry burden considerably.

Most light cleaning tasks can be done by the one-handed worker, providing she is prepared to take longer than she did formerly. The use of a tank type vacuum cleaner on a swivel base is recommended wherever possible, and cleaning supplies may be pushed around the house on a small wheeled table or may be carried in a basket or shopping bag. It is possible to organize bed-making so that one trip around each bed, even during changing, will be adequate. Heavy cleaning, such as wall and floor washing, can sometimes be done in part by the handicapped housewife but she may require some assistance from other members of the family.

It is quite possible physically for the one-handed person to use a sewing machine, but the success of this will depend on her interest in the activity and also on her former skill. Although she may not be an accomplished seamstress, it is suggested that she be encouraged to look after simple repairs and buttons.

Frequently the prospect of caring for a child can be of the utmost concern to the handicapped mother. Methods of child care, including dressing, feeding and bathing, must of necessity be worked out individually, and frequently the use of a practice doll in the rehabilitation setting will help to eliminate much anxiety. The age and needs of the child will vary but basic methods can be worked out with a little time and thought. For example, often the one-handed mother will find it easier to care for a small baby in a carriage rather than in a bed, so that he may be wheeled about the house and lifted more easily. Once again, allotment of a certain amount of responsibility to other members of the household will help the mother to carry on successfully.

THE HOUSEWIFE WITH AMBULATORY PROBLEMS

This group may include, as well as some of the disabilities previously mentioned, patients with arthritis, paraplegia, poliomyelitis, multiple sclerosis and amputations, and with them as well as with the others mentioned, a well planned kitchen with a comfortable postural chair or stool, coupled with time and motion study methods as applied to the individual situation, provides the basis for maximum function. For those confined to wheelchairs, problems of equipment may be a little more involved but even minor changes such as the adjustment of heights of tables, stoves and laundry equipment, the utilization of low storage space for food or utensils, the use of a wheelchair tray, pick-up tongs, pull-out lapboard, the elimination of the frame in front of the sink so that the patient can get the chair close to the sink, and in some cases the elimination of door frames to increase door width can do much to help the patient. Sometimes a house which has been especially designed for use by a person in a wheelchair is available and reduces the problem considerably, but usually it is necessary to evolve as practical a working plan as is possible in a normal house or apartment. The combination of rooms, such as dining room-living room, dining room-kitchen, will reduce steps considerably. If stairs are involved then careful planning of the number of trips up and down, either on the part of the patient or of someone else in the family, is necessary. Many of the equipment and method suggestions made previously apply to patients in this category.

CONCLUSIONS

Frequently, the recognition and isolation of problems, followed by the discussion and practice

(*Continued on page* 174)

TUTORING FOR BEHAVIORAL DELINQUENTS

BERTHA J. PIPER, O.T.R.

DOROTHY LE GROW*

In the normal course of events, the life of the average adolescent boy or girl is involved primarily with learning techniques: school subjects, music lessons, club merits, dancing lessons, dramatics, and so on. He may be dreaming about getting a job eventually and earning big money, perhaps even showing precocious ingenuity in securing pin-money, as ambition and imagination develop. But the necessity of schooling still remains the predominant feature in the picture. If he is reasonably well adjusted and makes the grade, fulfilling his place in the adult world on the credit side of the ledger, well and good. But not every adolescent person is that fortunate; psychiatric care may intervene.

Where does the patient in the teen-age bracket fit into this awesome sounding "rehabilitation process," through which he presumably should progress, mature and return to his community as a stable citizen? And how can the occupational therapy service help to make such prospects materialize? A broad-visioned concept of contemporary occupational therapy programs in psychiatric institutions should place special value on the significance of providing scholastic instruction for adolescent patients along with the equally important and more frequently prescribed therapeutic occupations.

The few cases described in this article are among eighteen behavioral delinquent individuals who have received the benefits of a tutoring program in the Fairfield State Hospital during the past two years. The program has been complemented by occupational modalities directed toward appropriate activity for remedial, socializing or explorative purposes, e.g.: typing, stenciling, mimeographing, newspaper production, dressmaking, leather work, woodworking.

Patients attend school classes upon the request of a physician, either in group or individual sessions, for approximately ten hours per week. The tutor reasons topics through with each patient as lessons are gleaned from the study assignments. School books are secured from a patient's home school in certain instances. The tutor follows specified subject material according to the grade level of each pupil. Tests are given as frequently as the tutor considers it necessary, often orally. Careful review and repetition of instruction are required practice. In order to promote good socialization and group harmony, a procedure that is considered an important factor in the development of adolescent interpersonal relations, a half-hour or so of social dancing is conducted periodically, or competitive table games may be used. This has quite perceptibly, and in no small measure, an influence also on the pupil's readiness to accept study with an enthusiastic mood and persistent effort. There are many interesting comparisons disclosed among the various personality dysfunctions and levels of intellectual function.

Case 1. Jim is the 18-year old son of a man described to be a heavy drinker and exceedingly domineering and abusive toward his family. At the age of 15, the boy became markedly preoccupied, then turned violent in his mood and attacked his parents with sharp weapons. He was jailed for a week prior to his commitment in 1953. His diagnosis was established as schizophrenic reaction, acute undifferentiated type. His hospital care included insulin shock treatments, psychotherapy and industrial therapy.

This patient was referred to occupational therapy while he was on the admission ward, with a special request by the doctor for tutoring procedures. The tutor discussed the case with the physician and gathered pertinent facts concerning the patient's background, temperament and current problems. Reading material was then discussed with the patient, and the book *Kon-Tiki* was decided upon for the first selection. The decision was made, first, on the basis of the patient's expression of interest in a subject of this nature and, second, because the tutor regarded the book as a medium stimulating enough to grip the imagination of this high-spirited and rebellious patient; furthermore, there were excellent possibilities of conversational topics associated with this true account of scientific adventure. It was a brand new paper-covered edition, and the patient felt quite pleased that he had received the book before anyone else had possessed it. On a subsequent visit, the tutor discovered several pages missing from the book but no comment was made about it because the patient readily discussed all of the story from the deleted sections. On the next visit which the tutor made, more pages of the book were gone and the tutor expressed regret because the book was damaged and inquired whether the patient had missed reading any of the material because the pages were lost. The patient replied, "No. You see, the other fellows are anxious to read this book too, so when I finished reading each chapter I pulled

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out the pages and handed them over to those people to read. In that way, they won't have to wait for me to finish the book!" Needless to say, his relations with the tutor and with some of the other patients on his ward were going along well. He went on reading other types of literature, e.g.: *David Copperfield* and current events. The tutor spent one-hour sessions with him three afternoons a week. New subjects were added to his study assignments: English, spelling, U.S. history, historical novels such as *The Virginian,* and social sciences such as *The Problems of Democracy.*

However, the patient was experiencing an acute psychotic episode, and his behavior began to grow less favorable. After three months on the admission ward, his attention span was quite poor and his unmanageable behavior on the ward necessitated a transfer to a maximum security area. He showed a definite inclination to give up studying but the doctor in charge of his case advised the tutor to continue his efforts to direct the patient's interest toward his schoo! work. For about a month, the patient's attitude was sulky, resistive and argumentative concerning his hospitalization. The tutor, nevertheless, continued to visit the patient, listened intently to his provocations and offered him helpful advice. The boy's interest in reading gradually returned, and in another month his speed of reading and his retention of subject material were much improved. The tutor now was able to give him more appropriate subjects to study, including fiction and non-fiction. In twenty-four hours, he read *Caine Mutiny,* and then he began some really sound reading assignments. His attitude and behavior steadily improved. He was transferred to another unit where restrictions were more relaxed. He accepted a job in one of the farm units. He went bowling with other patients at the community bowling alleys, and he received a privilege card which enabled him to go in and out of the wards by himself. He accepted other industrial duties where he could undertake more responsibility in the day's work. He voluntarily acquainted himself with the occupational therapy work center for woodworking and library activities between job assignments and in spare hours, in order "to avoid boredom." He maintained an eagerness to pursue his school subjects with the tutor at convenient hours during the week, reviewing mathematics, reading and discussing current events, and studying scientific subjects found in various magazines. After several trial visits at home, he received a discharge from the hospital. Subsequently, on his own initiative, he availed himself of the high school equivalency test provided by the state board of education, and he received a high school diploma.

Case 2. Louella, 19, diagnosed schizophrenic reaction, chronic undifferentiated type, has recently been discharged from the hospital. During the eleven months of her hospitalization she received electroshock treatments and group psychotherapy. Her obsessive-compulsive behavior concerning personal hygiene began at the age of eleven and subsequently developed into excessive indulgence in showerbaths and constant cleaning of her bedroom and personal articles. She maintained a bright normal level of intellectual functioning and completed three years of high school.

Her withdrawn personality became less pronounced during her hospital care; her response toward occupational therapy with other patients on her ward showed good progress. The respite which she experienced during her hospitalization from a rigid, domineering mother situation, the helpful advice and guidance which she received from doctors, instructors and therapists, the purposeful activity which was provided for her during her hospitalization, bolstered her self-assurance considerably, if not completely. She worked cooperatively with the tutor and completed assignments in English, spelling, general science, general mathematics and American history. Arrangements were made by the tutor with the state board of education for the patient to take the state equivalency test. She was escorted by a member of the OT staff to the examining center in a nearby city where a large number of other applicants were assembled. She succeeded in passing the examination, an achievement which brought her tremendous satisfaction for it rewarded her with a high school diploma. In a few weeks she had recovered sufficiently from her illness to return home. The tutoring and encouragement which she received while within the hospital gave her the impetus she needed to pursue her studies. It is doubtful whether she would have had adequate motivation to do this by herself had she gone home before taking the examination.

Case 3. Jack, age 13, demonstrates general intellectual and cognitive retardation in his psychological testing. He was committed because his family could not control his wandersome behavior. His school attendance and progress were poor, and he was a serious problem in the community. The clinical picture is one of "adjustment reaction of childhood, and manifestation of neurotic traits." His basic needs of greater security and personal esteem should be developed through milieu therapy where he may evolve an inclination to relate to some adult figure. He is now cooperating satisfactorily in the school group under the tutor's supervision, reviewing mathematics, spelling, literature, and geography on the sixth grade level. His school principal says that

the work which the patient is doing will be credited to him so that he may go on to the next grade if and when he is able to return. A welfare agency is also inquiring into the prospect of placing him in a children's center where he may receive special care and supervision, with instruction in school work.

Case 4. Helen, 17, has chronic brain syndrome and Huntington's chorea with psychotic reaction. Tutoring has stimulated her interest in literature and grammar. Her ability to help Jack with his reading at certain times while the tutor is taking care of other patients has been reassuring to her. But her attendance at the school session is irregular, inasmuch as her mood takes a down-swing occasionally when the disheartening prospect of continuous hospitalization overwhelms her. The tutor keeps in touch with her, nevertheless, in frequent ward visits, prevailing upon her to reactivate her interest in the school work.

Case 5. Tom is a ten-year old, a behavior problem with delinquent tendencies, threatening to kill people, and becoming destructive and assaultive. The psychologist's report describes the boy as "basically a person who lives in and for himself; appears to relate to people but shows a purpose in manipulating them so they will work for him; present personality development may become a real character disorder or sociopathic personality."

The boy's intensive hostility toward school has been a major problem surrounding his young life, and it was for this reason that the tutor approached the subject with a gradual, get-better-acquainted attitude. After a week or so of friendly visits and conversations between the patient and the tutor, and, fortunately, between the patient and two other adolescents who were already attending the school and who made favorable references about it to him, the patient requested that he be included in the group. His subjects have been reading and spelling on the fourth grade level, and arithmetic on the third grade level, which are taught to him individually. His group activities with three or four other patients consist of arithmetical problems at the blackboard, block construction, a spin-the-dial game in geography (for familiarity with national topography) and a game of parchesi (for competitive exhilaration). It is good to see how well he can adjust to a competitive game situation, accepting defeat when it comes his way and yet staying on good terms with the winner, in contrast to the rebellious behavior which he is capable of demonstrating at times, perhaps following a disappointing visit from a close relative who has failed to fulfill his hopes of going home. He wishes "they wouldn't come at all until they can take me back with them." His daily attendance at the school sessions, therefore, help to give him the rewarding feeling of acceptance and recognition of his best qualities, important in the growth of personality, and predominantly so when there are feelings of rejection and frustration blocking or distorting that development.

Case 6. Crispo, a 16-year old Puerto Rican boy, with an acute schizophrenic process, was in the midst of social and psychological stress at the time of his admission. His language difficulty caused him to feel frustrated and ashamed in his school situation, although his testing revealed a bright-normal intellect. His symptoms displayed anxiety toward his own identity, withdrawal from reality, attempts to find security by preoccupation with religion, impossibility of identification with either parent, and suicidal threats. The objective in tutoring him was to help him acquire self-confidence by providing an opportunity for him to demonstrate his intellectual qualities, and he secured acceptance and enlightened interest through the group relations with the other pupils. He attended daily school sessions for reading, writing and speaking English before his discharge from the hospital.

Tutoring adolescent patients in a psychiatric hospital substitutes to a small degree the educational experience related to a normal pattern of living. Allowances have to be made for individual differences and pathological limitations. Such a program might well be recognized eventually as an integral pattern of treatment procedure in the psychiatric institution, corresponding to the specialized course of training in the schools for mentally retarded. In fact, progress toward a long-planned 60-bed child study and treatment home was substantially aided by the Connecticut legislature in 1955 with an appropriation of $500,000.

One common factor—development of the learning capacity—applies throughout with all cases coming into the tutoring program. Thus, they are learning to apply attention to the subject at hand, to discuss and reason through abstract and concrete problems, to associate in an acceptable manner with others in a restricted schoolroom environment. Such a program is intended to enhance good habit training for character development.

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An Abstract of
A STUDY OF
THE PRESENT AND POTENTIAL ROLE OF OCCUPATIONAL THERAPY IN REHABILITATION*

WILMA WEST, O.T.R.
HENRIETTA McNARY, O.T.R.

PART IV

MAJOR EDUCATIONAL IMPLICATIONS OF THE STUDY

Introduction. The objective of this section was to cull from Part III, and indirectly from Parts I and II, the major educational implications of the study. This section therefore contains some interpretive comments and observations which it was not the intention to present in other parts of the study.

The content has been divided into three sections: summary generalizations on the recommendations implied in those critical comments with the greatest frequency (as recorded in the unabridged Part III of the study); summary observations on the total educational philosophy and pattern for preparation of the occupational therapist; and a brief evaluation of the methodology and results of the study.

SUMMARY RECOMMENDATIONS ON EDUCATION AND PRACTICE

Education. There was general consensus that preparation of the occupational therapist needs more dynamic emphasis and course material in:

1. The basic and applied sciences, particularly anatomy, kinesiology and neuroanatomy. A few of the more extreme comments on this subject suggested that both quantity and quality in these courses were inadequate. Specifically suggested needs included: a surer knowledge of muscle attachment, structure and function; a better concept of human motion in relation to gravity, balance, and work performance through group muscle action; understanding of peripheral nerve innervation, patterns of paralysis and deformity resulting from muscle imbalance; increased preparation in the physiology of muscle function and repair; and more extensive knowledge of control areas and pathways of the central nervous system.

2. The principles and techniques of prosthetics. It was generally agreed that the area of pre- and post-prosthetic training of upper extremity amputees is now a standard assignment to occupational therapy in the clinical field. Part of the reason for criticism of preparation for this function is based in the fact that occupational therapy schools in general did not include instruction in this area until well along in World War II. Demonstration of what could be done for this disability group, with emphasis on psychological as well as physical needs, plus research and development programs which have produced more mechanically satisfactory protheses have resulted in an earlier and greater awareness of the need for special training for the civilian amputee.

Recognizing this fact, occupational therapy schools have incorporated basic training in prosthetics into the standard curriculum, and the results of this preparation are steadily becoming more apparent. It seems evident that the academic portion of education must continue to include orientation to this field and sound instruction in the psychological and physical principles of amputee treatment and training. The area of application of specific techniques, however, appears to be one in which the student affiliation centers should assume greater responsibility for student education since this type of learning is best achieved through experience.

3. The activities of daily living. This is another area where there was common agreement on both the limited preparation and the need to have occupational therapy do more on the clinical level. It stems primarily from the problem of the increasing numbers of chronically disabled and older patients in both hospital and community populations. It is needed because it is realistic and practical to equip patients to be independent in self-care.

There are two basic problems with reference to the role of occupational therapy in the activities of daily living. One is the question of exactly what in this area can be taught on the school level. If students are here oriented to the principles, scope and rationale of ADL, it seems logical that clinical affiliation centers be expected to instruct in specific techniques. These do not seem to constitute appropriate subject matter for presentation in the academic setting. The other question is one which has been undergoing considerable discussion in the clinical field, namely: where is the line drawn between what the physical therapist does in ADL

*The previous installment of this article appeared in the May-June issue.

and what the occupational therapist does in this area? The arbitrary division of assigning the lower extremity to the former and the upper to the latter follows the previous custom in treatment and training of the amputee, yet this solution is not wholly acceptable to the professional groups concerned, nor is it agreed on among physicians charged with total care of these patients. Until practice in this area becomes more clearly defined, the school's responsibility in teaching is not clear. It would seem advisable, however, that interim procedure recognize the current demand for knowledge and skill in this area and that both academic and clinical programs in education include relevant principles and practices of ADL at least for the upper extremity.

4. Adapted equipment. This area includes the design and fabrication of any items which may aid either the treatment or training of the physically disabled. It therefore includes supportive and dynamic splints as used by the handicapped, a relatively new and undeveloped area of demand on the occupational therapist.

On this subject, the majority of both comment noted and practice seen indicate that occupational therapists are being assigned responsibility for developing braces and splints because of their scientific and medical orientation and interest, their technical know-how in fashioning materials, and their possession of materials and supplies.

It seems impossible at the present time accurately to predict the future trend with reference to educational and clinical requirements in this field, but it may be conservatively suggested that, first: regardless of developments in practice, the occupational therapist should have a sound and thorough orientation to the anatomic and kinesiologic principles of both supportive and dynamic splints, since knowledge of their use seems imperative whether or not the therapist makes them; and secondly, that they might also be given indirect though applicable experience that would fit them for this role if called upon to perform it. The latter may be provided through adaptation and shift of emphasis in the present technique course in metalwork to provide: more lathe work with metals, particularly stainless steel; experience in shaping, contouring, brazing, grinding, soldering and welding metals; the qualities and characteristics of metals; and how to order metals, including the use of a micrometer. These are the essential elements of knowledge and technique deemed necessary by occupational therapists currently doing extensive work in this area.

5. Work simplification. In the 20th century push-button way of life, countless energy-saving devices and techniques have resulted from man's constant search for easier ways of accomplishing all kinds of tasks. It is customary to apply such principles and techniques toward simplification of the work of the cardiac, the tuberculous, the partially paralyzed and many other types of handicapped disabilities. The problem of the disabled housewife, in particular, has occasioned much investigation of work simplification, especially since the physically handicapped homemaker is now eligible for vocational rehabilitation funds and assistance. In this area, occupational therapists are increasingly in demand to work with home economists in translating physical abilities into vocational requirements.

The basic principles of work simplification apply, however, to all disability groups, to the processes involved in sub-contract jobs handled by sheltered workshops, to the organization and physical arrangement of an occupational therapy department into efficient work areas, and even to the dozens of daily tasks performed by the able-bodied in both vocational activities and daily living. For these reasons, it is believed sound to recommend that the principles of work simplification be presented in the academic curriculum. At least part of this could well be included in the present science courses in the form of a more thorough knowledge of body mechanics and the physiology of fatigue, with emphasis on economy of energy in activities, simple methods of reducing musculo-skeletal stress, and similar matters. This basic scientific foundation should be further elaborated in the applied science of kinesiology and again in the theory of applying activities as treatment. The actual techniques of work simplification can best be presented in the clinical setting where the student sees them demonstrated and applied for specific conditions.

6. Prevocational evaluation and testing. Adequate functioning of the occupational therapist in this area is dependent on certain additional needs in preparation. One of these is the need for more objective standards and methods of accomplishing both physical and vocational evaluations. To do this, a student must combine a knowledge of both normal and pathological structure and function with an understanding of the requirements of jobs. The former he now gets through basic sciences and medical subjects; the latter is not presently included in the curriculum and should be considered for addition. It should include orientation to the major job families, the elements of occupational analyses and classifications, methods of evaluating job requirements, and similar basic occupational information which would give the student a fundamental knowledge of the world of work, with emphasis on vocational demands.

This is an area offering unusual opportunities for correlation of the roles of the occupational therapist and psychologist. Both are concerned

with development in the patient of an emotional readiness for rehabilitation; both have a knowledge of the psychological components of illness and disability. The psychologist offers a definitive and objective approach with his extensive battery of tests and measurements of physical and vocational abilities; the occupational therapist maintains the subjectivity required to support the patient's emotional reaction while retaining the complementary value of testing through actual performance to determine disability limitations affecting his known abilities.

The solution for more effective performance of the occupational therapist in this area, therefore, lies also in his background in psychology. Courses in this subject need to stress knowledge of basic personal needs, personality structure, and the dynamics of human behavior. They should cover the development of personality through social and emotional maturity and the impact of interpersonal and cultural factors on personality development and physiological function. On this foundation, there should be superimposed an orientation to the principles of objective tests and their application to mental and motor performance. With such breadth of understanding carefully laid down, the techniques of effective performance in occupational therapy can be provided in dynamic and well-correlated theory courses and clinical affiliations. The student thus prepared would be equipped to meet multiple needs in rehabilitation: improvement in motor performance, evaluation of physical and vocational abilities, self-help practice and testing, and fulfillment of emotional needs.

Here, too, the clinical phase of the total education program has responsibilities. In addition to offering the student opportunities to do both testing and evaluation of patients, clinical personnel could be doing more to develop standard procedures in this area. At two of the centers visited, some excellent beginnings in this direction were noted and more objective and scientific results being shown. By and large, however, clinical personnel need to make better use of this opportunity to strengthen their own professional contribution and through it, the vocational rehabilitation of the patient.

7. Community resources. Comment on this subject was more a matter of self-evaluation than of external criticism from other professional groups, but it is nonetheless noteworthy for its origin. In general, occupational therapists are becoming increasingly aware of the need for utilizing the resources of other agencies in the broad scope rehabilitation programs currently being demanded. This indicates a healthy respect for the functions of other personnel and services without which there can be no truly coordinated, multidimensional approach. There is, however, inadequate knowledge of community resources at the command of the occupational therapist, and lacking this, the therapist lacks the means of considering other services and making appropriate referrals to them. It is recognized that presenting this information in a dynamic manner is a very difficult task. Thus the solution to this problem is not entirely clear, but that it exists as a need in all professional disciplines was attested by comments recorded in the study.

8. On the subject of therapeutic media, there was considerable agreement that:

a. In general, too many crafts are included in the curriculum, and there should be more intensive preparation in a selected few. For many years, occupational therapists have been increasingly aware of the tremendous scope and diversity of therapeutic activities comprising the "tools" of their trade. According to a survey conducted by the national organization in 1949, seventy different activities were reported as being used in 410 occupational therapy departments in this country.[6]

While the schools cannot dictate specific elements of practice followed in the various institutions employing occupational therapists, they can and should function as the leaders in determining general professional procedure. This problem of impractical diversity of activities is one which might best be resolved by the schools' taking a definite stand with respect to a more feasible plan for teaching the creative and manual skills. A few of the more frequently noted comments with regard to such a plan suggested: that five or six major and broadly applicable skills (e.g., woodworking, metalwork, printing, etc.) be selected from the present total range and instruction in these be qualitatively improved; that the clinical affiliation centers assume responsibility for instructing students in the major additional skills most frequently used in clinical programs; and that occupational therapy programs in general reduce the total range of crafts used to an extent commensurate with the ability of the average therapist to be competent in teaching them. It is sincerely believed that such general policies and procedures would result in an increased quality of occupational therapy that would adequately offset resulting limitations in diversity.

b. The conventional media should be supplemented with more vocationally-related activities. Some of the logic and reasons for this suggested change, as brought out in the study, included the following comments: the arts and crafts do not appeal to or meet the needs of all people; they have a feminine label; they are inadequate for developing strength; and they do not simulate the demands of jobs.

The major and as yet unsolved difficulties with respect to this problem are the questions of

identifying the new activities which might be used and determining how and on what level they may best be taught to the student. While the second and third parts of these decisions are within the immediate jurisdiction of the educators, the first appears to be more a matter for clinical determination, since it is only on this level that new procedures may be tried for both applicability and feasibility in practice. To this end, therefore, it is believed that a major investigative and experimental study should be undertaken by the profession to survey the many facets of this problem and determine possible solutions.

Pending the educational implications of this possible future alteration of the curriculum, the schools may prepare the student for adjustment and performance in this area. Through courses in economics and sociology, there should be a focus on man's relation to his environment in competition with his fellow-man, under the stresses of an industrial and highly mechanized age and within the rigors of a strictly competitive system; and on the implications for the housewife, precipitated at least in part by the wonders of household gadgetry, kilowatt servants and the industrial availability of the ready-mix, do-it-yourself way of life.

> "The sociological changes of the past fifty years . . . industrialization, urbanization, suburbanization, changes in value systems, secularization, migration, and changes in traditional institutions, notably the family . . . may contribute to the intensification of emotional tension, anxiety, and conflict, to which many persons respond with impaired health. Moreover, there is a wide variation in the ability of individuals to adjust to a rapidly changing environment . . . "[7]

The physical, mental, social and economic implications of these and related trends and characteristics of the age are basic to the understanding that must exist in any who work in the social welfare field. They are applicable regardless of the treatment media employed and must assume larger significance if occupational therapy is to function with more direct relationship to the total range of patient needs.

On the clinical level, those departments whose programs permit adaptations to introduce and experiment with more vocationally-related activities might well offer objective information on the results of such trials. Both academic and clinical personnel should keep in mind the intention and effort to apply vocationally-related activities for therapeutic as well as testing purposes and in programs for patients other than the physically disabled.

9. With reference to student affiliations, several comments supported the necessity of:

a. Earlier clinical experience. The "clerkship" currently used by a number of the accredited schools is an example of the solution recommended to meet the need of the student to see patients at an earlier point in the educational process.

The total amount of time devoted to these pre-clinical experiences is not so vital as is their place in the educational program. Optimum scheduling indicates their placement with relation to segments of learning; for example, a clerkship in psychiatry related to didactic courses in abnormal psychology, clinical psychiatry, and the theory of occupational therapy for psychiatric patients. This type of educational unit falls between the brief and casual observation that is available to the student on a routine field trip and the longer and more valuable clinical experience which comprises the nine months of student affiliations scheduled directly after completion of the academic phase.

b. A strengthening in the content of clinical material presented in student affiliations. The clinical affiliation period is nine m o n t h s in length, and during this time, the student is required to have experience with patients in five major diagnostic areas. The average length per affiliation is eight weeks, and since caseloads do vary, it may readily be seen that it is impossible to provide meaningful experience for all students with all types of conditions. Even in those situations where a large and varied caseload is available, clinical supervisors too often consider "exposure" adequate and do not seem to accept the larger connotation of teaching responsibility. There is great need for more imaginative clinical instruction which would offer the student valuable experience in applying theory to practice. There should be more conscientious effort toward supplementing the available clinical material with selected films, reading references, case histories, seminars, journal clubs and similar media for learning.

It seems needless to state that clinical instruction programs do vary and that some are much more educationally sound than others. In addition to factors noted above as determining quality, sound concept, adequate staff and close correlation with a teaching institution will influence the contribution of this phase of education. Clinical centers should request, and s c h o o l s should be prepared to provide, educational concepts; a reverse exchange of clinical concepts would likewise be valuable.

Another problem that must soon be faced by the profession as a whole is that of considering practice in terms of patient problems and treatment objectives rather than on the basis of diagnostic groups. Such a trend in occupational therapy would add realism and flexibility to both education and practice.

During the past year, the thirty accredited schools of occupational therapy used more than

300 different hospitals, institutions, and agencies in the United States as student affiliation centers; approximately half of these were used by only one school and many were used only intermittently.[8] These statistics alone cannot condemn the educational policies and practices which result in such spread and diversity of teaching facilities, but it is undeniable that the larger and broader the group of affiliated institutions, the greater the necessity of interrelationship and correlation of total educational aims. It would seem a far easier and more certain procedure to have the extra-mural facilities more concentrated in the area of the parent educational institution and more coordinated in total approach to educational objectives. More clinical centers want student affiliation programs than are able to offer real quality in training. A reduction in the total number of facilities used would result in a greater concentration of students and permit those who were doing training to offer more and better learning opportunities. The classical argument that clinical centers are obligated first to serve patients and only second to train students is not at issue since the essential question is whether a training program can be offered at all. If it is, it must meet all responsibilities of the organization for which it is conducted, and it has a tacit priority along with patient treatment. The schools also carry responsibilities in maintaining a reasonably even flow of students and in working closely with clinical personnel if a sustained program is to be effected.

Post-graduate education. This was generally agreed to be necessary for specialty preparation. Those who commented on this subject revealed an appreciation of the need to maintain the undergraduate program on a broad basis of preparation similar in purpose to the general medical background of the doctor. Further qualifications for work in the fields of cerebral palsy, poliomyelitis, and other highly individualized treatment problems is best obtained through post-graduate education of either the formal type offered by some of the accredited schools through master degree programs in occupational therapy and allied fields, or through the increasing number of clinical, in-service type programs presented by hospitals and agencies in specialty fields.

By and large, these comments came from administrators and physicians whose acceptance of the fact that undergraduate education does not presume to qualify occupational therapists for highly specialized treatment programs will simplify adherence to previous professional policy in this matter. It is an incumbent obligation, then, on both schools and clinical centers to offer further educational opportunities, and on graduate therapists to seek additional qualifications.

Practice. This term refers to the area of operation of the graduate and not to the clinical phase of education. With respect to this subject, there was strong recommendation that:

1. Programs should be extended in most of the areas in which educational needs have been noted, namely: basic and applied sciences, prosthetics, ADL, adapted equipment, prevocational evaluation and testing, and vocationally-related activities.

2. There is need for a greater degree of imagination and creativity on the part of occupational therapy personnel. There is extensive and well-justified opinion that occupational therapists exhibit a performance deficiency in applying skills as treatment techniques to meet individual patient needs. Students are emphatically taught, and graduates basically know, that they are not using activities as ends in themselves; that they are using mental and motor performance for therapeutic exercise, emotional balance, personal care, child development, avocational interests, vocational needs, or whatever result may be desired. The fundamental principles of education, particularly in the liberal arts concept, are far broader than one technique or any combination of techniques. The academic phase is only one segment of the student's total education. Here he is presented with certain basic philosophies, grounded in scientific and medical subjects, equipped with treatment techniques and indoctrinated with the theory of practice. In the clinical portion of the educative process, he must not be faced with a breakdown in programming which results from the unimaginative application of separate compartments of knowledge. He must see that which he has been taught creatively applied and he must be encouraged and guided in his own first efforts in practice. If these situations do not arise, the average student too soon loses the basic philosophy of his preparation and conforms but does not develop through what should be an enriching, broadening and further experience. The prime importance of maintaining an imaginative and creative approach among all personnel is vital not only to extending the value of the student's total educational experience but also to assuring quality of professional contribution. Only in this way can occupational therapy grow and meet changing demands. The schools share in this responsibility.

3. Communication, both verbal and written, with all groups concerned in rehabilitation, should be improved. This comment was made with both a general and specific frame of reference, recognizing that communication is an area wherein all disciplines need to show greater ac-

tivity, but also that occupational therapy is remiss in content and quality of communication as well as in quantity. Important elements in communication include: what to look for and how to understand, interpret and relate clinical material in records and reports; the need for greater objectivity and a scientific quality in records and reports; effective techniques in reporting and communication; the importance of an initial evaluation and treatment plan with all subsequent observation, notes and reports related thereto; the necessity for participation in clinics, rounds, conferences, evaluations and other group meetings. In most of these important respects, occupational therapists are deficient to some degree.

Summary. The major general and specific critical comments recorded by the study have here been further elaborated in an effort to interpret more of the implications of the critique which was solicited. These have been written in the form of a commentary designed to expand the meaning of the report itself, which could not be reproduced in detail. Many of the observations reflect comments made by one or more persons consulted in the study; some reflect general educational principles; and a few are based on personal convictions as related to educational and professional experience.

SUMMARY OBSERVATIONS ON EDUCATIONAL PHILOSOPHY AND PATTERN

A few of the general discussions held in connection with the study indicated support of the liberal arts philosophy of education. The institute for occupational therapists also went on formal record as approving a basically general and liberal program which would avoid specialization on the undergraduate level.

One of the more perceptive comments on this subject came from an administrator who is also an occupational therapist. This was the observation that the greatest problem with students today is not specific to occupational therapy alone but is a problem of education in general: namely, the tendency toward too high a degree of specialization which turns out students trained to do one thing only, not to ask questions, unable to face new situations and apply basic principles and theories toward their solution. In the ever-present concern about liberal arts versus vocational education, this is grist to the mill of the former philosophy, although support of it is still limited among personnel consulted in the study.

It has been pointed out that:

"Pressure is being brought to bear on those responsible for the content of the curriculum to be 'practical' in the sense of making courses narrowly vocational. While this trend needs to be guarded against, at the same time it challenges college faculties to modify the content of many courses in the light of present and future demands."[9]

The basically conflicting elements in this dual objective of general and specific education comprise the major point of variance between the concept of the school and that of the affiliated clinical teaching center. Thus, there persists a degree of hiatus between academic and clinical phases of education which is peculiar neither to the units concerned in this study nor alone to the profession of occupational therapy. Rather, it epitomizes the classic and continuing debate on philosophical versus technical education. On the one hand is the college or university dedicated to producing "the enlightened leaders . . . so urgently needed" in preference to ". . . legions of highly competent technicians and specialists but men without education, imbued with traditional prejudices, unable to think independently outside their narrow specialty . . . "[10] On the other side is the consumer of professional and specialized services—in this case, the affiliated clinical center—which is obligated to add a degree of technical skill and competence to the total qualifications of personnel it trains and will ultimately employ. Whenever there exists a dual responsibility for execution of this or any task, there must be the most complete possible empathy between the cooperating elements, an open willingness on the part of each to see and understand the objectives, motives and individual problems of the other. Lacking this relationship, although each may do his job in an adequate fashion, the end result will not be a complete and coordinated product.

In occupational therapy education, there are, admittedly, factors militating against closer correlation of the academic and clinical programs; for example, limitations in time due to personnel shortages and the physical separation of parent and affiliated institutions. Neither of these is more than a technical difficulty, however, when compared with the basic concept which may ever be at issue but must constantly seek understanding and cooperation toward a greater degree of success in achieving the common goal.

The institute for occupational therapists presented two recommendations designed to bring about a greater degree of interaction between schools and student affiliation centers. (See Part III.) The increased inter-relationship and correlated effort that such procedures would inevitably produce could well provide the milieu essential to a more coordinated educational program. From the point of view of school personnel, they would facilitate understanding between academic and clinical personnel in planning the total educational process, assure a closer and stronger relationship between theory and practice, and relate the student's clinical prob-

lems to possible instructional gaps and weaknesses. For clinical personnel, the same benefits would accrue, but of even greater importance would be their developing appreciation of general educational objectives, such as: the desirability of giving "greater emphasis to principles, as opposed to details and techniques"[11]; the need for "less emphasis on information and the accumulation of a mass of factual data and more on how knowledge is discovered and put to use . . . "[12]; and the obligation of the college to

" . . . do infinitely more than teach facts and theories. It must help the student develop his faculties . . . train him to think independently and critically, so that he may form his own judgments . . . teach him methods of study so as to enable him to keep pace with developments . . . open up horizons for him, lead him in attaining a correct sense of values, in developing his attitude toward life, in one word, his philosophy . . ."[13]

The school and clinical center make complementary contributions to the total education of the student. Both have highly important functions to fulfill; both have strengths and weaknesses, problems and gratifications. Each will admit that the other is essential and neither will deny that there is need for increased understanding between them and continued effort toward as complete a union of techniques as exists in objectives. In this process of attaining the ultimate goal, there must be an equal sharing of responsibility between schools and clinical centers. In addition to the previous proposal for alternating academic and clinical experience, other provisions might be made, such as: budgets to allow more frequent visits and periodic participation in each other's programs; interchange of the written word—for example, course outlines for case histories; mutual writing projects for publication where both schools and clinics participate; and group meetings and discussions for long-range planning and understanding. On the national level, too, helpful concepts and methods could be developed via the council on education with its subcommittees on student affiliations and schools and curriculum, as well as through the education office of the professional organization.

Through these and other media, there may ultimately be realized a closer balance between general and specific aims as expressed in the following concept.

"The mediaeval university . . . emphasized the universality and unity of learning . . . The goal of university education was to produce an all-round scholar, an ideal that was carefully preserved for centuries . . . The word *doctor* means *scholar* . . . Conditions changed in the nineteenth century when the development of science led to increasing specialization. A deep split occurred between the humanities and the new science . . .

"Specialization occurred by necessity. No man can possibly embrace the entire realm of knowledge . . . We need highly trained specialists. But we need more than specialists . . .

"We who have the privilege of living in a democracy have not only professional duties but also duties as citizens. We have responsibilities not only toward our families and the institutions in which we work but also toward the community and society at large . . .

"We shall continue to develop highly trained specialists, but we must give them broader equipment . . . General education must continue in the professional schools and must be correlated to the subject of the course. Whatever a man's specialty is going to be, he should be familiar with its history, its sociology, its philosophy. This will by necessity broaden his outlook and increase his usefulness."[14]

EVALUATION OF THE STUDY

Method of procedure. The procedural methods used in this study did not presume to have the formality of those which characterize the controlled scientific investigation: the purpose of the study did not indicate use of such methods.

At the outset of planning the clinical visits, it was recognized that standard results could be assured only through the use of a standard survey or questionnaire form. Such was therefore prepared and used as a basis for conducting the individual clinical visits and interviews. Due to the resistance of most professional groups to the overworked survey and questionnaire approach, however, this was not circulated for completion by the participants, nor was it made more than generally evident in terms of indicating the purpose and method of the study. The basic orientation, written in advance to each participating institution and verbally repeated to each individual and group consulted was identical; it is perhaps unnecessary to state that the resulting interpretations, replies and comments of the numerous and diverse persons contacted did not bear a similar uniformity.

In conducting the visits and interviews designed to yield the required information, the personal and informal approach was frequently necessary because of the relative novelty of a professional group's seeking a broad-scale appraisal by other groups. Reception was uniformly cordial but response was occasionally limited. Where individuals had obviously given thought to the advance general inquiry, comment was often spontaneous and direct. In other cases, discussion revealed the influence of highly local situations, individual problems, and similar matters which inevitably colored content of the contribution. In a few instances, a great reluctance to volunteer any comments necessitated the formulation of specific questions and thus controlled and directed the line of reply. Still other variations entered in the form of the diverse and therefore widely varying demands being made on occupational therapy in the many professional areas it serves.

One rather obvious imbalance of the study related to procedure is a limitation in the range

(*Continued on page* 171)

HEMIPLEGIA AND CONCOMITANT PSYCHOLOGICAL PHENOMENA

CARL H. DELACATO, Ed. D.*

This paper is aimed at the clarification of two psychological phenomena which appear in hemiplegia and which interfere in the therapeutic and rehabilitative process. This interference is encountered by physical, speech and occupational therapists. For purpose of our discussion, we shall term these two phenomena "rigidity" and "propositionality."

Hemiplegia usually occurs as a result of a gross insult to the motor area of the cortex. The resultant loss of function to the side of the body opposite to that of the cortical insult is not only physically traumatic but is also coupled with deep psychological trauma. Cerebral accidents usually occur to people who have led fairly active and productive lives at or near the height of their productivity. Such a sudden and gross physical disability is generally followed by the phenomena described below:

RIGIDITY

There are many classic examples of rigidity in hemiplegia. These examples vary from the patient who was deeply disturbed by a lack of symmetry in the placing of furniture to a patient's inability to function properly within a changed time schedule. Although this phenomenon can be observed in many instances of sudden gross physical disability and although it is becoming increasingly apparent within the field of geriatrics, it is strikingly apparent within the therapeutic framework when dealing with hemiplegia. For example:

Case A. Patient could feed himself satisfactorily. On one occasion we changed his chair to another side of the table. He could not feed himself nor could he bring himself to eat in the new position which was in no way related to the use of his hand. When moved back to his original position, he could feed himself.

Case B. (*Out-patient.*) Patient B's occupational therapy schedule was changed to a time which was an hour later than the original time. He continued to arrive at the former time even though he was constantly reminded that the time was changed. He seemed incapable of rearranging his schedule.

Case C. (*Right-sided hemiplegia with loss of speech.*) Patient C was making excellent progress in occupational therapy. The therapy program and rooms were re-organized in an effort to improve the service. Patient C cried uncontrollably. Upon being given her original chair position within the group and upon returning to her original schedule of therapeutic activity, the crying ceased and the patient again profited from occupational therapy.

These rigidities are probably the result of withdrawal on the part of the patient in the face of overwhelming psychological trauma. Sudden onset of disability leaves the ego vulnerable to all types of uncomfortable stress, hence the only natural protection for the ego is withdrawal. This withdrawal is toward familiarity and psychological security on the part of the patient in the form of rigidity through the seeking of an unchanging and familiar environment.

Therapeutic procedures which do not take into account this natural withdrawal toward ego protection through the acquisition of rigidities may well tend to increase the pattern of rigidity in the patient. To offset the interference of these rigidities to the therapeutic process, the occupational therapist should move slowly toward the patient at the outset. The occupational therapist should be quietly enthusiastic. The occupational therapist should be gentle but firm in initiating the program. The program should be rigidly controlled relative to time, space and personnel. The therapeutic activities, however, should be varied daily within this framework. All beginning activities should be aimed at ego building. The patient must be made to feel increasingly secure if he is to rid himself of his natural tendency to withdraw. As occupational therapy progresses and as the ego structure becomes strengthened, the therapist can insist on greater environmental variability for the patient and greater social interaction on the part of the patient.

Analyzing patients' reactions in terms of this concept of rigidity will help occupational therapists to use their time spent with patients more effectively.

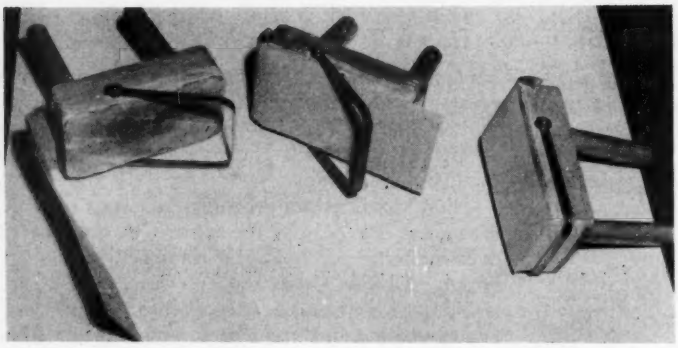
PROPOSITIONALITY

We have all seen people who can drive a car, light a cigarette, and carry on a logical conversation all at the same time. If we asked such a person to describe the actions which one goes through to drive an automobile under these circumstances, the driver invariably becomes a less

(*Continued on page* 172)

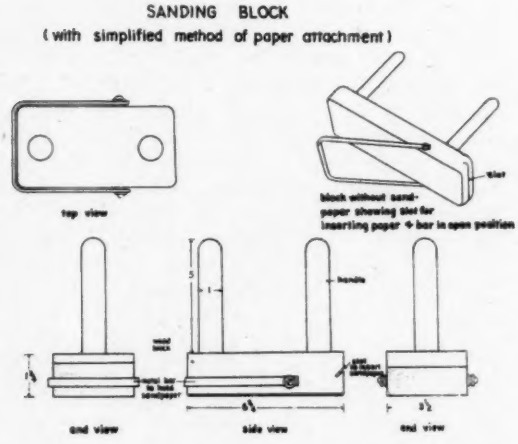
*Dr. Delacato is the director of psychological services of the Rehabilitation Center at Philadelphia, 8801 Stenton Avenue, Philadelphia 18, Pa.

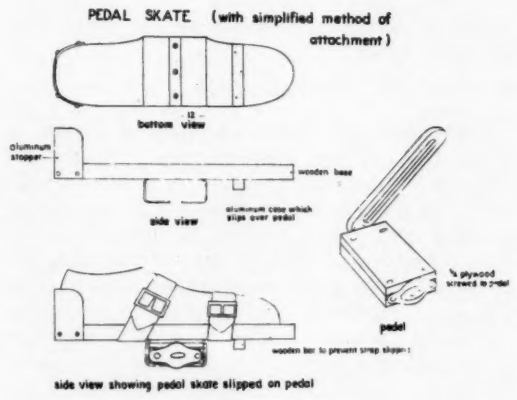
Picture Page



*SAND BLOCKS**

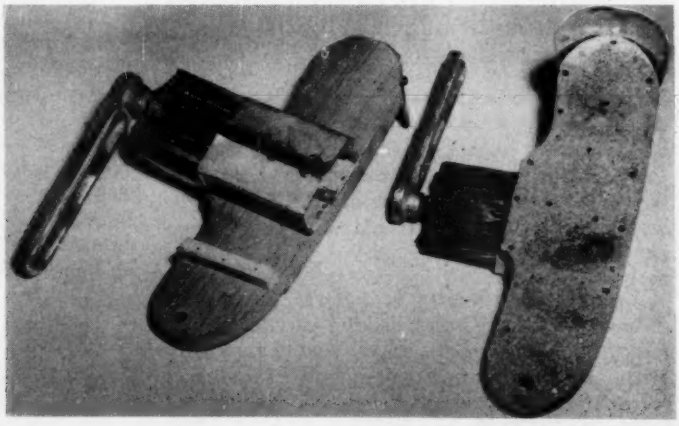
Above are sand blocks with slot and metal clamps for ease of insertion and removal. Paper is held snugly and does not tear or wrinkle. Two dowel handles on top are for bilateral use. Sanding paddles can be built on the same principle. Below, left, is the working drawing of the sand block.





Below is a "skate" screwed to the pedals of bicycle equipment. The skate is made from ¼" plywood and the aluminum case slips over pedal snugly but easily. Wooden strip on bottom of skate keeps toe strap from slipping. Above right is a working drawing of the skate.

*PEDAL SKATE**



*Pictures from Valley Forge Army Hospital, Phoenixville, Pennsylvania.

NATIONALLY SPEAKING

From the Treasurer

OUR DOLLARS 1946-1956

1946

In 1946 The American Occupational Therapy Association moved to new and larger quarters on 42nd Street. Its total income for the fiscal year 1946-47 was $35,000.00, (round numbers have been used throughout.) In order to establish the registration examination $13,000.00 was used from reserve funds leaving $5,000.00 in the reserve account. The national office staff included seven persons: two professional, the executive secretary and education secretary, and five clerical. The education office as a permanent part of the Association's function had been started on a three-year grant from the Kellogg Foundation. The registration examination in its present form was being developed.

There were 2510 members of the Association and 2215 registered therapists. The re-registration fee was $3.00 and the membership $6.00, a total of $9.00. For the first time in the history of the Association an occupational therapist was president.

Williams and Wilkins published the journal: *Occupational Therapy and Rehabilitation.* Dr. Dunton edited the journal serving without remuneration. The House of Delegates had 24 associations as members.

1956

In 1956 the American Occupational Therapy Association moved to new and larger quarters on 57th Street. Its estimated income for the fiscal year 1955-56 was $120,000.00 exclusive of grants. The reserve funds were $45,000.00.

The regular national office staff includes 12 persons: five professional, the executive director, assistant to the executive director, the education secretary, the assistant to the education secretary, half time, and a part-time psychological consultant, and seven clerical staff.

The Association has published its own journal, *The American Journal of Occupational Therapy,* since 1947. There are two paid staff members, the editor and secretary. The office of the Journal is in Milwaukee.

Approximately $69,500 in grant funds were expended during this year. Additional staff have been required for these projects: three professional persons, two part-time coordinators, a public relations expert and secretarial assistance.

There are 3762 members of the Association and 4925 registered therapists of whom over a thousand are married and not at present working in occupational therapy. The re-registration fee is $8.00 and the membership dues $10.00, a total of $18.00.

The House of Delegates has 36 associations as members.

The American Occupational Therapy Association is a charter member of the World Federation of Occupational Therapists which was founded in 1952.

The purchasing power of the dollar in March, 1946, was 128; in March of 1956 it was 86.4 or a 49% decrease in purchasing power. Therefore, considering the purchasing power of the dollar, we are paying the same amount of dues as in 1946 and our income of $120,000.00 for comparative purposes is $60,000.00.

What is the source of the income and for what is it expended. Of the $120,000.00 income exclusive of grants, approximately $100,000.00 belongs to the general fund and $20,000.00 to the education fund.

The general fund accounts for all association activities other than education and special grants. The estimated income of $100,000.00 is derived from the following sources:

Membership dues, re-registration fees, and subscriptions to the American Journal of Occupational Therapy	73%
Advertisements in the Journal, the Yearbook and commercial exhibits	16%
Sales of reprints, insignia, etc.	3%
Conference fees	7%
Donations and interest	1%

What services does the general fund provide and what per cent of our general fund income is spent on them?

The Journal and Newsletter	30%
The Registry and Yearbook	20%
Service to membership and associations	10%
Publicity and recruitment (cooperation with other allied professions)	10%
Placement service and advice to institutions	10%
Professional development-service to committees	10%
Education (transferred to education fund)	10%

The income of the education office this year is expected to be $20,000 plus $10,000 which is transferred from the general fund:

Examination fees and initial registration fee	52%
Institute	6%
Payment for special services	6%
Sales of education materials	3%
Transferred from general fund	34%

What services does the education fund provide and what percentage of the income is spent on them?

Registration examination	60%
Guidance of students and schools	10%
Guidance of educational grants	10%
Education council and committees	10%
Institute	10%

In addition to this income the Association has

received in the last two years approximately $112,000.00 in grants. As these cut across the fiscal year, they are listed in the calendar year in which they were received.

	1955	1956
Scholarships:		
United Cerebral Palsy Association and others	$15,000	$11,000
Recruitments and Publicity:		
National Foundation for Infantile Paralysis	19,500	23,950
Office of Vocational Rehabilitation for five geographically located institutes	14,830	10,000
National Institute for Mental Health psychiatric study	24,000	

Through the grants for scholarships, recruitment and publicity, it is hoped to meet our greatest professional need today—personnel. Through the other two grants, the one from the Office of Vocational Rehabilitation and the one from the National Institute of Mental Health, we should obtain information and stimulation to insure a better treatment program for our patients.

The Association has today a list of most desirable and essential projects for which money could be obtained through grants. These are (1) the evaluation of occupational therapy departments and student affiliation centers; (2) a study of vocationally related activities as a means of treatment; (3) a research laboratory for adapted equipment; (4) a job analysis of the occupational therapist's duties to be used as a means of strengthening the curriculum in the schools. The question is not how to finance these, but rather how much can we, the membership, successfully undertake.

The growth of our Association and its accomplishment in the last ten years has been most gratifying. This has, however, resulted in seriously overloading the national office staff and in making extensive demands on the membership. For this reason a special committee has been appointed to draw up a development plan so that our continued growth may be well regulated. Recommendations from this committee will be made to the Board of Management in October.

There are certain problems partially financial in nature facing us today or in the near future which should be considered.

1. Obtaining professional staff to work in the national office. This is essential to all progress. Is part of the difficulty in obtaining staff due to the salaries paid, the lack of retirement benefits other than social security, the constant pressure of work? A committee on personnel policies is now working on this problem.

2. Can members of the Association serving on committees continue not only to volunteer their time and effort but also to pay their travel expenses? With the extensive increase of committee work this is now presenting an increasing problem. Should the committees have funds to cover travel expenses of the members from a distance or should only local committees be organized.

3. Should the Association accept grants for projects which do not completely cover the costs of travel for participants serving on committees; if it does, are the members willing to make this financial contribution.

4. Should the Association accept grants which in two or three years require the Association to absorb the cost of the project and continue it? An example of such a grant was the Kellogg grant which established the education office and which the Association has continued to support successfully.

The present state of our finances is excellent but the budget for 1956-57 has no extra funds for payment of additional expenses and the contingency fund is $126.00 compared to $1,540.00 last year.

It is imperative that the membership consider carefully what the future development of our Association is to be, that this include the financial responsibilities both immediate and future, as well as our needed professional growth. We can justly be proud of our progress to date. Let us plan wisely for the future.

Clare S. Spackman, O.T.R.
Treasurer.

From the Educational Secretary

The education office of AOTA takes pleasure in announcing the names of those examinees who successfully completed the February, 1956, registration examination.

Adler, Janet
Adler, Liane
Altounian, Richard S.
Bates, Donna R.
Beach, Gwen
Bennett, Carol
Bethards, Miriam B.
Beyer, Ruth H.
Blanke, Marilyn
Blew, Marcia L.
Blouch, Carole
Bonn, Mary
Boucher, Lorna
Bradley, Patricia
Bromberger-Barnea, Martha L.
Brower, Lester
Brown, Marjorie L.
Bryan, Wilma J.
Burns, Gloria L.
Burpee,* Charlotte
Butler, Estelle E.
Campbell, Joyce
Carey, John P.
Carlson, Joanne B.
Carney, Dolores
Carstens, Sylvia
Casterline, Twila J.
Catalino, Joan
Chieffo, Audrey
Chu, Patricia
Coburn, Betty L.
Coffin, LaVon C.
Conner, Linda
Cook, O. Lucille.
Cooke, Catherine K.
Cooper, Margaret
Corderey, Joy C.
Corrado, Angela
Cosick, Carolyn
Dettrich, Donna
Dickerson, Helen
Dillon, Doris
Donovan, Barbara A.
Donovan, Margaret
Drosendahl, Gail
DuBois, Nancy M.
Dunning,* Edward
Edwards, Wimberly
Ethridge, David A.
Facen, James
Feldman, Esther

Fisher, Eugenie
Flemming Kathleen G.
Fowler, Elizabeth
Gaines, Nancy
Galantino, Ruth M.
Garlitz, Helen
Gellert, Marcia
Geralds, Dorothy S.
Green, Charlotte
Grenier, Sally A.
Grieb, Mary
Guhl, Mary J.
Guion, Carol
Hanamoto, Dorothy
Handel, JoAnne
Hashiba, Helen
Hawk, Lael
Hightower,* Mae D.
Hilker, Vivian C.
Holmes, Evelyn
Holter, Ethel L.
Homeyard, Virginia
Hoover, Bonita
Hoovler, Kathleen
Hopper, Helen F.
Huff, Charlotte
Hull, Katharine
Hull, Roger A.
Hume, Frances B.
Hurst, Linda
Innes, Barbara J.
Janson, Diana
Jennings, Bette
Jesson, Mona C.
Jurovich, Bernice
Kageyama, Jeanette
Kao, Miranda
Kapp, Adele D.
Keaveny, Mary
Kempf, Barbara
Kessel, Sheila
Kettler, Elizabeth
Kiely, Jane
Klein, Patricia P.
Korman, Vivienne M.
Krembs, M. Jeanette
Landberg,* Lois M.
Lehrer, Maxine O.
Leibengood, Barbara E.
Leonard, Elizabeth
Leppanen, Nancy E.
Levine, Barbara
Lewis, Anne
Litton, Shirley
Lively, Lorraine R.
Lloyd, Josephine L.
Louie, Susan
Lundine, Phyllis
Lupton, Margaret
McAlister, Caroline
McCarthy, Ann
McDonald, Norma
McIntyre, Marjel
MacKenzie, Mary J.
Malone, Floy J.
Markman, Rose
Martin, Jo
Martin, Joanne G.
Mather,* Ilse R.
Matson, Elizabeth M.
Matsutsuyu, Janice S.
Mayer, Carol
Melvin, Ella S.
Mendoza, Norma
Miller, Ann W.
Miller, Leal D.
Misono, June
Mockler, Mary
Moon, Meredith
Mullinix, Mary G.
Murata, David M.
Murphy, Anne F.
Murphy, Donna
Nakagawa, Katsuko
Newman, Estelle
Nordell, Genevieve E.
Nothman, Renate
Oberg, Betty B.
Omachi, Esther
Palen, Mary L.
Palmer, Charlotte
Parlato, Barbara
Parrella, Gloria
Patnaude, Joan
Patterson, R. Angela
Peck, Theresa A.
Pedersen, Paul
Petersen, Doris B.
Plummer, Patricia
Potter, Dolores
Rauschel, Mary L.
Ray, Lyle M.
Reed, Mary C.
Reingold, Wilma
Revzen, Ruth
Richardson, Pauline D.
Richwine, Alice B.
Rigdon, Donna R.
Ring, Jane B.
Romence, Bonnie
Rose, Charlotte H.
Russell, Lorinda F.
Saline, Vera E.
Salsberg, Deborah S.
Samson, Louise
Sawamura, Yoneko
Scharmen, Geraldine R.
Shivers, Martha L.
Smith, Diane
Smith, Harold J.
Smout, Fayrene
Snead, Mary E.
Sosa, Gloria
Sproul, Janet L.
Squire, Elizabeth
Stamm, Barbara
Steele, Eugenia F.
Stemper, Judith
Stephan, Pauline H.
Tagliarini, Violet
Tanaka, Ethel K.
Thompson, John C.
Tolliver, Shirley R.
Trainer, Marilyn S.
Ulivarri, Helen J.
VanRensselaer, Elizabeth
Vroman, Janet
Wallace, Janice
Weldon, June C.
Wentz, Yvonne L.
Wertz, Carlene
Winkler, Carolyn
Wise, Danessa V.
Wolch, Jewel
Yee, Rose
Yoshida, Jean
Young, Susan
Zavadil, Carol

*Completed with honors.

Mary Frances Heermans, O.T.R.
Educational Secretary.

EDITORIAL

WHAT'S IN A JOB?

Basic professional principles are ever present and static. Although jobs change, treatments improve and patients vary, the basic principles remain constant. In occupational therapy they revolve around the therapist and her relationship with her patients.

Although we have improved this relationship we haven't altered the fact that our main concern is the welfare and betterment of the patient. This welfare encompasses the entire hospital staff and unless we maintain high standards for our own treatment procedures improved through research and study, unless we work with others in a reciprocal aura of friendly relationships, and unless we have the respect and enthusiasm of others on the medical team, we fail to maintain the principles of our profession.

No therapist works in a vacuum, no therapist can confine himself to a limited working day. To be successful, he must give of himself unselfishly and generously. And to be truly effective, this pertains not only to relationships with patients but to all professional stimulation, his immediate environment and his national profession.

Lack of concern for any professional aspect of a job except the confines of his eight-to-five job, limits a therapist in his effectiveness. It is not chance or a drive for self-glorification that makes our best therapists also our most prominent ones. Their contribution beyond the needs of their immediate jobs, makes them the leaders locally and nationally and from these efforts they gain well-deserved praise and appreciation. Research, committee work and liaison work are all tedious, time consuming and enervating. But the results of such efforts have effected the growth of our profession, and without growth we fail to keep pace with other professional agencies who are also interested in the patient's welfare.

A non-professional person can limit himself in the confines of his job, but a truly effective professional person can never restrict himself without detriment to himself, his profession and most of all his patients.

Therefore an occupational therapist must always grow in knowledge and personality and contribute to his utmost in hospital relationships, and in professional contacts both locally and nationally.

Welcome To

Minnesota

ANNUAL CONFERENCE

Of The

AMERICAN OCCUPATIONAL THERAPY ASSOCIATION

Hotel Nicollet

Minneapolis, Minnesota

SEPTEMBER 29-OCTOBER 5, 1956

General Theme

Time For Reflection

CONFERENCE HIGHLIGHTS

We present the following as a preview of coming attractions you will find in Minneapolis in 1956. Here are a few of the outstanding authorities who will speak to you. So don't forget—see you in the land of sky blue waters!

We take great pleasure in announcing that our keynote speaker at the 1956 conference will be the Hon. Orville L. Freeman, governor of Minnesota. The theme of his speech will be "New Horizons in Rehabilitation." This is a Minnesota program in which the Governor has taken an active interest.

Miss Margaret Fulton, president of the World Federation of Occupational Therapists, will present her greetings at the AOTA banquet.

This year, Miss June Sokolov, O.T.R., has been named for the Eleanor Clark Slagle lectureship. The topic will be "Pre-Vocational Evaluation." Miss Sokolov is the executive director of the Hartford Rehabilitation Center.

Dr. Bernard C. Glueck, department of psychiatry, University of Minnesota, will discuss "Regressive Shock Therapy." Accompanying this will be a demonstration of occupational therapy during the regimen with several University of Minnesota occupational therapists participating.

Another presentation for those interested in the psychiatric field is entitled "Chemotherapy—Resulting Revisions in an Occupational Therapy Program." Speaker will be Mrs. A. Ward Lockhart, O.T.R., Colorado State Hospital, Pueblo, Colorado.

Dr. Edward E. Gordon, Michael Reese Hospital, Chicago, Illinois, will be one of several speakers who will discuss the subject, "The Development of Work Tolerance in TB Patients."

Some important findings in research in cardiac output in occupational therapy will be presented. This research has been carried out under the direction of Dr. Frederick J. Kottke, head of the department of physical medicine and rehabilitation, University of Minnesota, who will be one of the principal speakers on this subject.

Dr. Odon F. Von Werssowetz, medical director, Gonzales Warm Springs Foundation, Gonzales, Texas, will give an analysis of adaptive equipment, with an occupational therapy demonstration by Miss Muriel Zimmerman, O.T.R., of the Institute of Physical Medicine and Rehabilitation.

"Psychosomatic Conditions in Children with Behavior Problems" is the subject of Dr. Adelaide Johnson, Mayo Clinic, Rochester, Minnesota.

Dr. Frank Krusen, Mayo Clinic, Rochester, Minnesota; Miss Mary Switzer, Office of Vocational Rehabilitation, Department of Health, Education and Welfare; and Robert Walker, Rehabilitation Center, University of Minnesota Hospitals, will each present their views on the controversial subject, "The Contribution of Occupational Therapy to Vocational Rehabilitation."

MIDYEAR MEETING OF THE BOARD OF MANAGEMENT

American Occupational Therapy Association

HOTEL STATLER, DETROIT, MICHIGAN

April 14-15, 1956

Roll Call

Members Present

Major Ruth A. Robinson, O.T.R.
Miss Beatrice Wade, O.T.R.
Miss Florence Stattel, O.T.R.
Miss Clare S. Spackman, O.T.R.
Miss Frances Helmig, O.T.R.
Mrs. Arvilla Merrill, O.T.R.
Miss Elizabeth Whitaker, O.T.R.
Miss Ethel Huebner, O.T.R.
Miss Corinne White, O.T.R.
Mrs. Ivabelle Rhodes, O.T.R.
Miss June Sokolov, O.T.R.
Sister Jeanne Marie Bonnett, O.T.R.
Miss Wilma West, O.T.R.
Miss Marie Louise Franciscus, O.T.R.
Miss Caroline Thompson, O.T.R.
Mrs. Elizabeth Jameson, O.T.R.
Captain Gertrude Murray, O.T.R.
Miss Mary Britton, O.T.R.
Miss Margaret Gleave, O.T.R.
Mr. Laurel Nelson, O.T.R.
Miss Henrietta McNary, O.T.R.—Ex-Officio

Not Represented

Mrs. Mary Crook
Dr. Donald Rose
Dr. Arthur C. Jones
Dr. William R. Dunton, Jr.

Presiding—Major Ruth A. Robinson, President

The minutes of the annual meeting, October 24 and 27, 1955, were accepted as distributed by mail.

Executive Reports

Treasurer—Miss Clare S. Spackman, O.T.R.

Financial statements and budgets for general and educational funds were distributed to all Board members in advance of the meeting. These included the proposed budget for the year ending June 30, 1957. The treasurer called attention to the following corrections made in the annual report, year ending June 30, 1956, as published in AJOT, February, 1956.

a. Total salaries figure under general expenses
b. Auditor's fees
c. Resulting change in contingency fund total.

It was voted:

1. Upon recommendation of the auditor, that 10% in actual cash of the value of the furniture and equipment be added annually for the equipment fund. This had previously been voted at 5% as recorded in minutes of the annual meeting, October 1954.

2. To investigate and re-evaluate our insurance coverage with particular emphasis on fire, theft and liability.

3. That contents of the safe deposit box be transferred from the vaults of the 22nd Street Branch to the 57th Street Branch, Chase Manhattan Bank, New York.

4. That a salary increment be given to the AJOT secretary, effective May 1, 1956. That increments to employees who have reached the maximum of salary range under present personnel policies be held in abeyance until recommendations are received from the committee working on the revision of personnel policies.

5. To increase our contribution paid as a member organization to the International Society for the Welfare of Cripples, from $50.00 to $100.00 per year.

6. To increase our contribution paid as a member organization to the National Health Council, from $50.00 to $100.00 per year.

7. That the AOTA allocate $100.00 toward hospitality for the delegates attending the council meeting of the World Federation of Occupational Therapists in Philadelphia, October, 1956.

8. The budget for the fiscal year ending June 30, 1957, was approved as presented.

Report accepted.

Executive Director—Miss Marjorie Fish, O.T.R.

A report of activities for the first half of the year was distributed to Board members in advance. Current numbers were reported as 4,925 registered therapists; 3,762 members; 112 World Federation members. The executive director expressed a high degree of satisfaction in the new office headquarters and sincere appreciation of the staff for same.

Discrepancies of the new billing system which went into operation this year were discussed. A critical evaluation of the plan is under study to remedy repetition of failures next year and to avoid the lag in time schedule.

It was voted in order to speed up the process, that the initial bills be sent out approximately September 1; that the second billing be sent approximately October 1 (with the statement that if already paid, it be ignored); that the deadline for inclusion of names in the Yearbook be one month from date of second billing. This schedule is recommended as a guide only and indication of general range of time in which billing and payment of dues should be transacted. It is not intended as an arbitrary setting of dates which must be adhered to.

Discussion of the Yearbook centered on two principal items: earlier publication date to shorten interval between payment of registration fees and receipt of directory; revisions in content to make the Yearbook more valuable to registrants, such as inclusion of names of directors of departments.

It was voted that the Yearbook questions go to a committee for study and that recommendations be made to the Board at the annual meeting.

Report accepted wtih appreciation.

Educational Secretary—Miss Mary Frances Heermans, O.T.R.

The report on the first full year's use of the RPSA was presented. The results and interpretation of data from the study were distributed to all Board members at the meeting.

It was announced that in the future this study would be conducted only in regard to those students taking the registration examination.

A new system for recording the clinical affiliation centers used by the approved schools has been inaugurated to provide a continuous record. Early data indicates a questionably wide scatter of student affiliation centers which should be watched.

A new procedure in special services differing from the past is that reports to the schools will be prepared annually to include the relative school standing for each examination and the area analysis of two examinations combined. Previously, this was done every second year to cover administration of four examinations.

Report accepted with thanks.

Speaker House of Delegates—Miss Frances Helmig, O.T.R.

Voting of the state associations on several matters was reported. The majority voting indicated:

1. Acceptance of report of committee on recognition of non-professional personnel.

2. Change of annual conference dates from fall to spring.

3. A yearly report from states for inclusion in the AOTA annual report.

4. Continuation of delegate reports in AJOT.

Several states requested that the following matters be brought to the attention of the Board:

1. That the AOTA push for Blue Cross payments for occupational therapy. The Board advised that this is a state matter, as there is no national Blue Cross headquarters.

2. That the secretary of state associations receive the material generally sent to the delegate and president. The Board agreed to put this into effect.

3. That the AOTA budget be submitted to the states in April, so it can be voted on at the annual meeting of the state associations. The Board advised that the budget is approved by the Board of Management and does not need state approval. Questions from the states relative to the budget should be submitted through the speaker of the House of Delegates to the Board.

4. That the chairmen of state legislative and civil service committees write to the state for six copies of the current job specifications and salary range to be forwarded to the AOTA for loan basis use. The AOTA will be glad to comply with this request.

A resume was submitted of the work being done in New York State to form one state association with districts.

Report accepted.

Editor of Journal—Mrs. Lucie S. Murphy, O.T.R.

The editor reported a marked decrease in advertising space with consequent drop in revenue. Advertisers state that they do not get results from their advertisements. The east coast area was reported still without an advertising representative.

It was recommended that New York Metropolitan Association conduct a pilot effort in an experiment with state associations handling the selling of advertising in their areas for which they would receive 20% commission.

The editor reviewed preliminary steps taken toward preparation of application for a possible research grant in terms of benefit to the future expansion of the Journal. *It was recommended* that this be referred to the development plan committee for its logical place in time and content sequence.

Report accepted.

REPORTS OF CHAIRMEN OF STANDING COMMITTEES

Council on Education—Miss Henrietta McNary, O.T.R.

Summary reports of the four education committees were presented with the following recommendations:

1. *Graduate study*: that a questionnaire be incorporated into the annual AOTA bill requesting information from members on graduate study activity and thesis topics; that a thesis section be established in AJOT.

2. *Schools and curriculum*: that the names of examinees who have successfully passed the registration examination continue to be listed in AJOT, but that the code number for the schools of graduation be eliminated; that the date for administering the February and June registration examination will be the *last* Friday of those months; that all school directors will forward to the education office significant changes taking place in the OT curriculum.

3. *Student affiliation*: that the present RPSA form be continued until evidence of need for change.

4. Scholarship: no recommendations. Routine actions reported.

Both groups elected their delegates-at-large to the council completing the full constituency of that body and it is now operating according to the newly designated plan.

The council is drawing up a statement relative to projects in process and under advisement, their timing relative to grants, and basic philosophies in education.

Dr. Hinman reported that the name of the council on physical medicine and rehabilitation in the American Medical Association has been changed to "council on medical physics." He further reported that the council on medical education and hospitals had recently established an advisory committee on physical therapy education consisting of physicians and physical therapists. He suggested a similar advisory committee on occupational therapy education would be appropriate.

The council on education recommended to the Board the approval, endorsement and support of the procedure of appointment by the council on medical education and hospitals of the AMA, of an advisory committee on OT education similar to that established in physical therapy. It was felt that in the interim, if the council so needed, the AOTA medical advisory council supplemented by a suitable number of OT's could be called upon to function in this advisory capacity.

It was further recommended that the Board request the AMA council to form an advisory committee on OT education and that there be one representative from each of the following: physical medicine, orthopedics, psychiatry, tuberculosis, surgery, pediatrics, internal medicine and four members of the AOTA.

The Board voted endorsement of this recommendation and that the executive committee carry it out giving full consideration to the discussions of the Board.

Report accepted with thanks.

Registration—Miss Mary Frances Heermans, O.T.R.

Two hundred and eighteen (218) examinees took the February examination which was proctored in 32 different universities.

The registration committee membership will be increased by fall with members coming from somewhat greater distances.

The Spanish translation of the February examination will be administered in the Puerto Rican school on April 27 with eight graduates sitting.

An item writing drive has been launched to secure an increased number of questions for the examination. Letters and informational material were sent to 86 prospective writers of whom 41 have indicated their desire to participate. The newly established plan of a token payment for each accepted item is in action.

Report accepted.

Permanent Conference—Mrs. Winifred C. Kahmann, O.T.R.

Due to increasing growth of annual conferences and resultant planning, the need of a co-chairman of the permanent conference committee has become evident. Mr. Laurel Nelson has accepted this appointment.

The 1956 conference planning is progressing well under Miss Genevieve Anderson, local chairman with an excellent committee. To date, 28 of the 40 booths for commercial exhibits have been reserved.

The 1957 conference will be held in Cleveland at the Hotel Carter, October 19-25. *It was agreed* that the Cleveland meeting should be planned as a "workshop" type of conference devoting the total conference time to the program, except for the business meeting of the membership. There would be no institute. The content under this plan would be based on material and recommendations from, and a culmination of, the various institutes held for occupational therapists during the previous period, including those of the American Hospital Association, Office of Vocational Rehabilitation, AOTA, and the psychiatric project of the National Institute of Mental Health.

No decision was reached relative to location of 1958 and 1959 conferences due to possible shift of time from fall to spring. The previous report from the House of

Delegates indicated the majority of those voting to be in favor of spring. This raised the question of two meetings in one year, or the feasibility of skipping a year and scheduling with one and one-half years between conferences during the 1958-1960 period. Convenience to commercial exhibitors and their availability in spring versus fall was considered an important factor. *It was agreed* that the permanent conference chairman would contact the exhibitors and report back to the Board for final decision.

It was voted that $500.00 be advanced to state association conference committees to pay in part for their conference planning. This could be expended at their discretion and accounted for to the AOTA.

Report accepted.

Clinical Procedures—Miss Wilma West, O.T.R.

The first installment of material produced by the subcommittees has been submitted to the AOTA for printing and distribution totalling approximately 105 pages and representing the areas of tuberculosis, general medicine and surgery and physical disabilities. The tuberculosis material was entirely complete; the latter two represented 15 and 10 diagnostic studies, respectively. The submitted material included an introductory statement prepared by the chairman and a compiled synthesis of treatment objectives for each of the five major disability areas published as a preface.

The physical disability subcommittee is undertaking a photograph collection service for AOTA which is channelled through the special studies committee.

A section on mental retardation under the psychiatric subcommittee has been organized as approved at the annual meeting.

One section of a committee has asked for a further year's delay feeling they cannot meet their assignment before then. The Board backed the chairman in not favoring permission for a committee section to exist another year with no effort to produce work.

Report accepted.

Legislative and Civil Service—Mr. Laurel Nelson, O.T.R.

The chairman presented statements and material of two studies which the committee has worked on: (1) an approach to the matter of salaries in OT; (2) civil service qualifications re non-professional personnel. Both of these studies represented valuable work and the Board indicated their backing in following out the recommendations presented. No. 2 would be referred to the special committee on recognition of non-professional personnel. *It was agreed* that the state associations should be encouraged to work locally with the civil service problem through their state committees.

Attention was called to the inadequate description of occupational therapy as it appeared in "Job Descriptions and Organizational Analysis for Hospitals and Related Health Services," published by U. S. Department of Labor and U. S. Employment Service, 1952.

It was voted that the civil service committee be empowered to draft a letter to go from the AOTA to the American Hospital Association, Department of Labor and U. S. Employment Service indicating the erroneous interpretation and concept of OT and to request that a supplemental statement be submitted for incorporation in the next revised publication of the book. It is to be stated that we would be glad to consult with a representative.

It was agreed that the executive director should explore further means of presenting this to the membership as well as other federal and voluntary agencies whose help can be utilized in clarification.

It was suggested that the supervisors of occupational therapy in state service could be a valuable group to help in civil service matters, and the chairman was encouraged to plan to gather this group together inviting them to attend the meeting of the legislative and civil service committee at the annual conference.

Report accepted.

Committee on Recognitions—Captain Gertrude Murray, O.T.R.

In accordance with the Board request at the 1955 annual meeting, a report was given on the purposes and organization of this newly established standing committee. A well-defined description and delineation of the two forms of special recognitions (the Award of Merit and the Eleanor Clarke Slagle lectureship) was presented.

It was voted that the report be accepted in essence and that a mail vote of Board members desiring any changes be required by May 1st, after which the committee would be free to proceed.

It was voted that the speaker send the section on the Eleanor Clarke Slagle lectureship to delegates with the request that they send in their nominations on the forms with instruction to come to the annual meeting prepared with names which will be submitted to the selection committee. The requirement of nominations being in the hands of the committee on recognitions four months before the annual AOTA conference will be waived this year, thus avoiding the necessity of skipping a year without a lecturer.

It was voted to incorporate in these minutes the substitution of the paragraph on purpose of recognitions: "to honor an individual or group who have made an outstanding contribution or contributions to the field of OT" in place of the statement in the 1955 San Francisco minutes reading: "the Award of Merit may be given to any member of the Association who has made an outstanding contribution above the call of duty. It has no memorial significance."

It was agreed that the committee give further study to the special recognition of retiring OT's.

REPORTS OF CHAIRMEN OF SPECIAL COMMITTEES

Joint Committee on Recognition of Non-Professional Personnel—Miss Marion Crampton, O.T.R.

A formal report was not submitted as the committee had not yet met as a group. The chairman asked for Board direction relative to clarification of status and ongoing responsibilities of the committee.

The Board responded as follows:

1. *It was voted* that this committee be perpetuated as a special committee and appointed as any other committee; that the membership now in effect shall continue with the same representatives it has until its work is completed. The committee is not limited to present personnel only, but the chairman is authorized to call upon others for membership or in a consulting capacity.

2. The course outline for training activity aides submitted by Wisconsin's state department of public welfare had been referred to the committee on non-professional personnel. It was indicated that this committee was not in a position to endorse the course in the name of the committee or of the American Occupational Therapy Association, but that they could encourage the Wisconsin group to go ahead with what appears to be a well planned course to meet state needs and inform them that several states conduct similar training programs. They will be notified when our guide outline is completed.

Manual of Occupational Therapy—Miss Marguerite Abbott, O.T.R.

It was reported that all previous members of the com-

mittee were invited to continue and new members were announced.

Objectives: to replace old AMA *Manual on Occupational Therapy* (out of print) with a physicians' OT reference guide for specific use of physicians with emphasis on treatment procedures and basic treatment criteria in the diagnostic areas.

Overall organization is to include an editorial division, writers' division, readers' division, editorial committee division.

Format will include a preface with approval by appropriate medical groups within the AMA and AOTA particularly by the members of the medical advisory council.

Publication date is proposed for April, 1957.

Report accepted with appreciation.

SOP on Committees—Miss Helen Willard, O.T.R.

The chairman reported that several of the standing committees had submitted their statements on purposes and functions in response to the request for same following Board vote at the 1955 annual meeting to review and bring up to date the 1953 committee structure study. Miss Willard asked for further instruction on proceeding. It was pointed out that the original intent was to draw an overall pattern of committees delineating their structure, objectives, functions and interrelationship. Then to build up in each standing committee an SOP on detail of operation and responsibilities of chairmen.

It was voted that the 1953 statement on committees be revised to include an organizational chart, a definition of the function of each committee and a statement of the interrelationship and lines of communication between all committees and with the national organization.

Report accepted with thanks.

REPORTS OF BOARD COMMITTEES

AOTA Personnel Policies—Miss Marie L. Franciscus, O.T.R.

This committee was established at request of the president, to make recommendations to the executive committee and Board concerning items in the personnel policies for national office staff relative to new policy as well as on policy where the present framework was too limiting. These items included provision for part-time personnel, certain salary considerations, and new categories of employees.

It was reported that the committee found itself unable to meet the assignment adequately without an intensive study of the entire structure due to the rapid growth of the national office. The committee recommended that:

1. A study be inaugurated to establish a long-range personnel policy framework that will be ready for growth and expansion of the national structure in advance rather than in retrospect.

2. A committee, including the executive director and the treasurer serving in ex-officio capacities, be requested to undertake such a study.

3. Serious consideration be given to the advisability of engaging a specialist in business and office management to serve as a consultant and advisor to the committee doing the study.

The Board voted approval of 1 and 2.

Pertaining to No. 3, *the board voted* that a committee be instructed to start the study and determine if an expert is needed after all of the ramifications have been gone into. If an expert is needed that exploration be made of various sources for such help as well as preparation of figures on costs involved.

Report accepted.

Development Plan—Miss Wilma West, O.T.R.

Following recommendation of the executive director at the 1955 annual meeting and of the executive committee at their February meeting, the President appointed a special development plan committee to give preliminary study to total long-range association needs with instruction to report to the midyear meeting. Extensive background material basic to an overall development plan was presented including the principal categories of our professional needs in terms of importance, time schedule, etc.

The committee recommended that:

1. The development plan study be continued in committee and that this be a committee of the Board including a delegate board member, and officers with the treasurer and executive director serving ex-officio.

2. The functions of the committee be to classify our total grant projects with regard to our basic professional needs.

3. Comments from the chairmen of the standing committees of the Association be solicited.

4. Mechanics and recommendations for implementing the development plan be set up plus a budget for financing.

5. The goal for achieving the objectives set forth in the plan be considered in terms of five years.

The final plan will be presented to the House of Delegates for approval.

Report accepted with a rising vote of thanks.

OTHER BUSINESS

Joint Commission on Mental Illness and Health—Miss Beatrice D. Wade, O.T.R.

As representative of the AOTA on the joint commission, Miss Wade reported two meetings this winter and progress in the further establishment of the commission relative to headquarters office in Cambridge, Massachusetts, with attending personnel. The first assignment requested of organization representatives was the submittal of possible studies in their respective areas. An outline of the material on occupational therapy was presented to the Board. This included a brief definition of psychiatric occupational therapy, goals and objectives, a listing of six proposals for inquiry with a bibliography on available data.

The Board voted appreciation to Miss Wade.

Medical Advisory Council Meeting. The Board voted that the 1956 meeting of the council be held in Chicago preferably on Friday, September 28th, just prior to the Minneapolis conference.

World Federation of Occupational Therapists. The Board voted approval of changes in the constitution as approved by the World Federation Council in Edinburgh in 1954 and as referred to the member countries for confirmation.

Correspondence:

1. A letter of resignation from Mrs. Frances Shuff, assistant to the executive director, effective September 15, 1956, was read. The personnel committee and Board accepted the letter with regret and expression of appreciation for her fine services.

2. A letter was read from Miss Dorothy Rouse announcing her retirement after 37 years in the Public Health and Veterans Administration Services.

Meeting adjourned.

Respectfully submitted,
MARJORIE FISH, O.T.R.
Executive Director

FINANCIAL STATEMENT

American Occupational Therapy Association

GENERAL FUND

Midyear Report, April, 1956

	Actual Inc. & Exp. Year Ending 6-30-55	Actual Inc. & Exp. 7-1-55— 2-29-56	Approved Budget Year Ending 6-30-56	Proposed Budget Year Ending 6-30-57
INCOME:				
Registration fees	$26,129.75	$35,109.00	$ 34,200.00	$ 36,000.00
Membership Dues	25,203.00	24,826.00	25,000.00	27,000.00
AJOT subscriptions				
Members $11,233.00)				
Others 2,713.05)	15,175.53	13,936.05	16,000.00	16,000.00
Advertising—AJOT	12,542.64	9,635.98	12,500.00	12,500.00
Sale of reprints	1,688.99	699.53)		
Sale of insignia	925.30	596.80)	3,200.00	3,200.00
Sale of pins	89.25	57.00)		
Sale of Yearbook copies	180.00	72.00	200.00	100.00
Yearbook advertising	1,493.93	400.87	2,400.00	2,000.00
Volunteer course	91.00	54.75	75.00	75.00
Conference	10,031.66	9,643.64	7,500.00	8,000.00
Interest—bank & bonds	913.45	768.86	650.00	750.00
Donations	300.00	50.00	200.00	200.00
	$94,895.81	$95,850.48	$101,925.00	$105,825.00
EXPENSES:				
Consultant	$ —	$ 618.00	$ —	$ 600.00
Salaries				
Professional	10,999.92	7,259.04)	22,353.00	27,853.00
Secretarial	11,421.78	8,807.88)		
Temporary secretarial	945.99	1,210.09	350.00	350.00
Travel	1,935.41	1,838.99	3,000.00	3,000.00
Cooperation with others	202.35	100.00	300.00	400.00
Recruitment & publicity	1,051.24	1,048.32	2,500.00	1,000.00
Exhibits	630.90	294.27	500.00	500.00
Office repairs	49.32	111.11	200.00	200.00
Postage & expressage	1,779.09	1,121.48	2,000.00	2,000.00
Books & subscriptions	78.83	32.83	150.00	150.00
Rent & light	2,100.00	2,633.87	5,200.00	5,946.00
Telephone & telegraph	794.46	616.72	700.00	900.00
Legal & auditing fees	591.90	519.25	350.00	500.00
Gratuities	115.00	114.00	125.00	125.00
Grant to educational fund	8,305.00	9,095.00	9,095.00	11,000.00
AJOT cost & expense	21,592.62	14,417.85)	25,000.00	25,000.00
AJOT discount & commissions	1,883.50	1,501.60)		
Yearbook postage	1,701.13	12.86	1,600.00	1,700.00
Yearbook printing	7,190.85	—	7,200.00	7,400.00
Conference	7,899.17	7,969.15	6,000.00	6,000.00
Newsletter	1,938.75	1,161.69	1,800.00	1,900.00
Purchase of reprints)				
Purchase of insignia)	2,042.73	882.81	2,500.00	2,500.00
Purchase of pins)				
Office supplies & expenses	2,235.58	2,786.44	2,200.00	2,500.00
Printing	1,170.86	1,480.17	1,800.00	1,500.00
Taxes and insurance	819.94	646.12	1,200.00	1,200.00
Miscellaneous	36.28	31.75	75.00	75.00
Purchase of bond	500.00	—	500.00	500.00
National office procedure consult.	—	—	200.00	200.00
Furniture & fixtures	66.95	—	100.00	—
Depreciation	—	—	500.00	700.00
Contingency fund	—	—	4,427.00	126.00
	$90,582.04	$66,311.29	$101,925.00	$105,825.00

EDUCATIONAL FUND

Midyear Report, April, 1956

	Actual Inc. & Exp. Year Ending 6-30-55	Actual Inc. & Exp. 7-1-55— 2-29-56	Approved Budget Year Ending 6-30-56	Proposed Budget Year Ending 6-30-57
INCOME:				
Grant from general fund	$ 8,305.00	$ 9,095.00	$ 9,095.00	$11,000.00
Registration examination fees	6,229.00	3,456.50	9,000.00	9,000.00
Initial registration fees	380.00	3,530.00	6,000.00	6,000.00
Sale of educational materials	1,521.83	895.16	1,000.00	1,000.00
Donations for scholarships	1,200.00	—	—	—
Conference institute	2,726.00	1,808.50	2,000.00	2,000.00
Payment for special services	1,110.90	1,325.58	2,000.00	1,200.00
Interest on bank balances	81.08	66.22	70.00	75.00
	$21,553.81	$20,176.96	$29,165.00	$30,275.00
EXPENSES:				
Salaries				
Professional	$ 4,916.60	$ 3,958.27)	$13,450.00	$13,300.00
Secretarial	2,864.89	1,996.83)		
Temporary Secretarial	—	—	300.00	—
Travel	488.66	1,026.35	2,000.00	1,837.00
Office repairs	59.25	5.74	200.00	100.00
Postage & expressage	457.70	298.00	400.00	450.00
Rent & light	785.00	1,106.64	2,800.00	3,413.00
Telephone & telegraph	249.10	233.25	240.00	275.00
Legal & auditing fees	148.75	190.75	150.00	200.00
Conference institute	2,475.16	1,468.13	2,000.00	2,000.00
Purchasing of ed. materials	704.72	794.77	900.00	900.00
Office supplies & expenses	335.34	300.00	350.00	400.00
Printing	821.54	382.31	350.00	400.00
Taxes	215.77	108.05	300.00	300.00
Miscellaneous	2.94	15.00	75.00	50.00
Consultation	4,716.00	3,137.87	2,500.00	3,000.00
Computation	572.00	393.00	700.00	700.00
Examination items	—	—	—	500.00
Special services	1,016.00	799.00	1,200.00	1,200.00
Examination expenses	515.62	314.36	550.00	750.00
Committee expenses	175.41	292.69	300.00	500.00
Contingency fund	—	—	290.00	—
	$21,520.45	$16,821.01	$29,165.00	$30,275.00

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OT in Rehabilitation . . .

(*Continued from page* 156)

of specialists consulted. This occurred by virtue of the fact that it was programs which were selected; personnel were thus predetermined by the respective staff members of each program, not selected per se. It would be desirable to consult additional numbers of physicians in the many medical specialties which use occupational therapy and also to contact greater numbers of people in nursing, vocational counseling, speech therapy and psychology in order to balance the numbers of persons consulted in related fields.

Appraisal of results. Evaluation of the results of the study recognizes that although relatively few completely new or drastic criticisms have been noted or changes proposed, several suspected or known facts have been brought more clearly into focus. The individual school directors and the combined group of educational leaders acting through the national organization's council on education have, at different times and through various media, noted some of the needs herein expressed. Even though action has already been taken on some of the areas drawing comment, there is need to implement other suggested and discussed changes that have been brought out in this report.

What is now needed, then, is a considered evaluation of the total critique and a selection of those elements which are most broadly applicable to the general needs of occupational therapy education, with equal attention and emphasis on both the academic and clinical portions of training. To summarize the broad major areas, they include: strengthening the basic and applied sciences in areas particularly pertinent to occupational therapy; reviewing and refining the scope and teaching of treatment and testing media, with special emphasis on daily living and vocationally-related activities; developing a better understanding and more dynamic inter-relationship between clinical and academic personnel in planning and implementing the curriculum; and implementing the best of current theory in clinical programs and selecting such for student affiliation.

It is the responsibility of the academic and clinical faculty of the college by and for which this study was conducted to process the curriculum pattern in such a way as to accomplish these

and other desired results, and of the school directors and clinical affiliation supervisors who comprise the educators in occupational therapy to evaluate whatever implications may obtain for the profession in general.

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Hemiplegia . . .

(*Continued from page* 157)

efficient driver and finds it impossible to smoke or converse at the same time. The explanation is that in the original situation the driving and cigarette lighting were operating as habits and were slightly under the level of consciousness, hence their smooth and efficient performance as habits. In the second situation the driving was made conscious, hence the behavior was more volitional and less efficient and habit like.

We have the same phenomenon in occupational therapy. For example:

Case H. Patient walks unassisted in the occupational therapy department. When taken to the pavement outside the department, the patient is unable to walk.

Case I. Patient has a spastic left hand. He cannot use the hand because of the spasticity. Patient is making a bookcase in the occupational therapy department. His hand during this activity is not nearly as spastic and is quite functional while he is working on his bookcase.

Case J. Right-sided hemiplegic brushes teeth with great difficulty, lacks smoothness of movement in moving his hand from any position to his mouth. Patient strikes match and lights cigarette with great ease and smoothness of motion.

The problem of propositionality is basically a problem of consciousness of movement. Patients move only to the point of efficiency dictated by consciousness. Having been taught a conscious process, the patient remains too conscious of the process, hence loses smoothness and efficiency typical of habits. We must, therefore, teach patients consciously to the highest point of efficiency and then make the activities into habits which operate slightly under the level of consciousness. The most effective mechanism for this transition is functional activity. In case H above, the patient after learning to walk should have varied activity requiring walking in a situation wherein walking is not a goal, but a means to an end. In case I above, interest in the goal of making a good bookcase superceded the consciousness of the hand, hence the hand became involved in smoother functional activity while its use was not a goal in itself but a small factor in attaining another goal. In Case J, the hands operated much more efficiently in a situation which was below the level of pure conscious volition. This patient fed himself much better when he ate socially and was able to listen to an animated conversation instead of being conscious of each movement required of his hand in feeding himself.

The reduction of propositionality is one of the primary functions of the occupational therapist. As rehabilitation centers become cognizant of the interference in progress caused by propositionality, the role of the occupational therapist will become increasingly significant to the overall rehabilitative process. Rehabilitated physical competencies, considered as ends by other therapies, become means toward ends in occupational therapy. As such, these physical competencies become functional activity of a higher level of proficiency than are activities which are too purely volitional and hence operate at too high a level of consciousness.

These phenomena have obvious general and specific implications for the occupational therapist. Because each therapeutic environment is different, the author will not specify these implications, but recommends that the occupational therapist can fill a crucially important role in psychological rehabilitation if these patients are dealt with in terms of these phenomena.

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The District of Columbia Occupational Therapy Association has forty-seven active and four associate members at the present time. From September, 1955, through April, 1956, meetings have been held once a month, excepting December. Starting with a picnic at Forest Glen, the meetings were planned around information available in several hospitals. These meetings included a combined occupational and physical therapy meeting at the Veterans' Administration Hospital (Mt. Alto); a lecture on the blood tissue bank at the Naval Medical Center, Bethesda, Maryland; a dinner meeting at Walter Reed Army Hospital; panel discussion on the cerebral palsied child at the District of Columbia Crippled Children's Society; modern trends in thoracic surgery at Freedmen's Hospital and a business meeting at Children's Hospital. The final program for the year will be at Saint Elizabeths Hospital with a lecture on "The Maximum Security Patient as a Person."

The educational committee sponsored a series of ten lectures on art therapy given by Miss Margaret Naumberg. Occupational therapists, psychologists, and other professional persons attended the lectures, which were held at Mt. Alto Veterans' Administration Hospital. Miss Naumberg kindly contributed a gift to our scholarship fund.

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The Ohio Occupational Therapy Association has a total membership of 93, seven of whom are associate members. The association functions with four districts centered around the cities of Cleveland, Columbus, Dayton and Cincinnati, all of which have local officers and conduct regular meetings. The chairmen of these regional groups along with the elected officers of the state association and state appointed committee chairmen, form the board of management of the O.O.T.A. The board meets twice a year, and one two-day conference on the state level is held each year.

The most recent development in the association is the creation of disability groups with a state chairman. These committees were formed with the following possible objectives:

1. To gather and exchange information about the disability area and to be ready to cooperate with any existing national committees.
2. To serve as a possible avenue to help with problems on individual jobs.
3. To consider questions for study or research. More than one department makes such efforts valuable and carries more weight.
4. To suggest programs for state conferences.
5. To set up meetings for more intensive study at times other than annual state meetings.

Other emphasis during the year has been upon recruitment and publicity with each district being represented at career days, radio and television appearances, and with posters and prepared literature for schools and guidance counselors.

At present the entire association membership is employing its efforts to organize and pool resources and ideas for the American Occupational Therapy Association conference to be held in Cleveland in the fall of 1957, and each member is hoping to meet all of you at that time.

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It often interests others to learn how recommendations are worked out. As New York is one of the first states to try to effect district formations, the Rochester Occupational Therapy Association is reporting on this aspect of its year's program.

After conferring with New York, the other affiliated state association, it was agreed that the other groups of occupational therapists should be included in planning for a state association. Therefore in January, 1956, a meeting was held in Utica bringing together for the first time all the groups; New York, Long Island, Utica, Syracuse, Western New York, Niagara Frontier and Rochester. Districts were discussed and a tentative constitution formulated to be voted on by the membership of each. If accepted, it will be submitted to the House of Delegates. The presidents of the two recognized associations have stated: "It is hoped that this approval can be arrived at smoothly and that a single New York state association will emerge ready and able to meet the needs of therapists throughout the state."

The annual meeting of the Rochester Occupational Therapy Association will be held on May 19th in Utica. It is hoped that the next report will advise you that Rochester is a district organization.

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TEXAS

Delgate-Reporter, Lucile L. Lacy, O.T.R.

An all-state meeting, our 20th annual state conference, brought TOTA members to Austin in April, 1955, for a two-day meeting. Programs for professional meetings were planned around the central theme *"Rehabilitation Is Our Business."* A river boat trip on Lake Austin provided much fun and a chance for the members to know each other better.

Plans for organizing the state into districts were initiated at the Austin meeting. Long distances in Texas between groups of therapists have made this a very welcome plan. Three districts have been organized. E. D. Jordan is chairman of the North Texas district; Marietta Doescher is chairman of the South Central Texas district; and L. T. Blanchard is chairman of the Southeast Texas district.

Under the leadership of Patricia Hart, state chairman of the public information committee, members have continued their efforts toward recruitment through the media of radio, television and career conferences. Plans are underway for developing new exhibits about occupational therapy. One $100.00 scholarship has been awarded to a student at Texas State College for Women in Denton, Texas.

A bi-monthly newsletter is being published to keep members informed about state happenings and plans.

The 21st annual conference was held in Galveston on April 21st and 22nd, 1956, with the theme "An Honest Look at Occupational Therapy." Enthusiastic reports from each of the recently formed districts at this meeting are good indicators for strengthening the state organization as a whole.

OFFICERS

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WISCONSIN

Delegate-Reporter, Marion Neumann Hartman, O.T.R.

The Wisconsin OT Association has given special emphasis in past months to the greater dissemination of national and local OT information to its members, and to an increase in interest and participation in local and national OT business. This has been effected through our quarterly *Newsletter*, through pertinent business discussions at all meetings, and through Tri-State meeting programming and attendance. Meetings have been held in Milwaukee, Madison and Waupun. Increases in membership and in committee participation have been sought.

We have continued to publicize OT through cooperation with Kiwanis in its Milwaukee County high school career days and in continued support of the Milwaukee County community welfare council's committee on recruitment; kits of information on medically allied fields have been sent out to high schools, and we provided OT literature for and manned for one day a council booth at the Wisconsin state fair. Information has also been sent to individuals and clubs requesting it and individual members have talked on OT to groups throughout the state. Radio and TV programs have been conducted by Madison members in cooperation with the Dane County community welfare council.

Improvement in our local business affairs has been brought about by the establishment of a central office with filing equipment and centralized records. Our constitution and by-laws have been amended to improve our committee and association functioning.

OFFICERS

President.....Ruth Wahlen, O.T.R.
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Home Management . . .

(*Continued from page* 146)

of pertinent activities will give the handicapped woman the assurance which she needs to carry on with her household responsibilities. Participation in group sessions will help her to become familiar with the problems which her particular disability presents and with methods to enable her to cope with them. She can learn much from patients with similar disabilities and can often contribute suggestions and ideas herself. Familiarity with household equipment and simple kitchen adaptations will also follow. The development of sound household management and good work habits can do much to prevent the increase of pain, deformity and fatigue, as well as to enable the housewife to carry on with the responsibilities which are so important to her. Once she gains efficiency in her own home it becomes more possible for the handicapped housewife to take part in community living and once again to become a contributing citizen.

Reviews

A SHORT DICTIONARY OF WEAVING, M. E. Pritchard, Philosophical Library, New York, 1956, 196 pp., $6.00.

The collection and definition of 662 names and terms that are related to handweaving, hand-spinning, dyeing and textiles. The author has tried to explain the technical words in untechnical terms so that the beginner as well as the experienced weaver can readily evaluate the different meanings and spelling of technical terms in weaving.

THE CONCEPT OF DISABILITY, Eleanor Cockerill, H. M. Margolis, M.D., *Journal of Chronic Diseases*, Vol. 3, No. 2, Feb., 1956.

Considerable emphasis is placed on understanding the patient and his disability in relation to his total situation. Some factors are to be found in the individual himself, others in his relationship to his social and cultural environment, and finally some factors may arise from his society and culture itself. An individual's problem then is to be found by careful examination of his physical condition, his feelings toward himself, his family, his job, his community, together with some evaluation of the feelings of people in these situations toward him. The collection, integration and finally the use of all this data requires a team of skilled professional workers who are willing to both share and contribute in realization of their own limitations and of others' skills.

The feelings of the family may be helpful to the patient, over-protective, or anxiety producing. Likewise the attitudes of society may be almost too protective, as in the case of returned war veterans, or suspicious and rejecting, as in the case of the tuberculous, epileptic, stable schizophrenic, etc. If a patient is to be treated successfully it will be in relation to this total picture, which must be evaluated in each case to determine what *should* be done and, under the circumstances, what *can* be done. Communication, collaboration and frequent re-evaluation are indicated. The authors conlude with three case studies which show the good results which may be achieved by a thorough evaluation of the patient as a basis for a coordinated and realistic treatment plan.

The reviewer is prompted to comment that the above philosophy and method, namely: thorough evaluation and the team approach to planning a coordinated treatment for the total individual is widely accepted. It is suggested, however, that the concept of disability is often broader than that suggested here, albeit a valid one. While many aspects of the total situation are quite correctly evaluated and solved by the physician and social worker, it is felt that vocational problems, aspects of personal care and activities of daily living are representative of areas requiring other skilled personnel. One can be in not less than complete accord with the principles herein expressed, and it is perhaps accidental that the case illustrations given illustrate only parts of what we believe should be included in the concept of disability.

—Carlotta Welles, O.T.R.

DICTIONARY OF ARTS AND CRAFTS, John L. Stoutenburgh, Jr., Philosophical Library, New York, 1956, 259 pp., $6.00.

A comprehensive dictionary of terms used in arts and crafts which clarifies terms used generally and freely in the field.

BREAKING PATTERNS OF DEFEAT, Richard L. Jenkins, M.D., J. B. Lippincott Co., Philadelphia, 1954.

This book does review and discuss treatment in a clinical situation. The technical vocabulary is held to a minimum to make it of value to clinical psychologists and social workers as stated in the foreword.

The book has value as a clinical report of the experiences and therapy used by Dr. Jenkins. The greatest value to the occupational therapist might be in the first neuropsychiatric clinical practice period. Here the reading of such a book could contribute as a point of reference to a psychiatric treatment program.

—Barbara Locher, O.T.R.

RECOVERY OF FUNCTIONAL ACTIVITY IN THE SHOULDER AND ARM FOLLOWING RADICAL MASTECTOMY, Norman C. Delarue, M.D., *Current Medical Digest*, Volume 23, Number 2, February, 1956.

A serious complication of radical mastectomy is impaired scapulo-humeral movement and arm function, the dysfunction being caused by scar restriction at the shoulder and obstructive lymphedema in the arm. Edema depends on anatomical vagaries and pathological scarring which develops in response to infection or sero-sanguineous fluid accumulation. Restriction of shoulder motion is due to the scarring and stasis edema in the shoulder as a result of muscular inactivity.

Edema may be controlled by (1) elevation of the arm to prevent gravitational fluid collection in distal parts of the extremity and (2) by elastic support when the extremity is dependent during ambulation. The elastic bandage is applied from hand to axilla to prevent reappearance of swelling before the limb resumes a dependent position. If the support is adequate, the patient may use the limb within limits of functional use depending upon the swelling induced by the activity.

Control of infection is the most significant factor in minimizing scar production. Routine antibiotic coverage is always indicated.

The problem of sero-sanguineous fluid collection is a constant threat to full recovery of arm function. Drainage and pressure remain fundamental operative procedures in prevention of fluid accumulations. After 72 hours most skin flaps will be adherent; however, the prescription of immediate active exercise of the shoulder to ensure rapid recovery of movement is dangerous. If the axillary flaps are tight and not firmly adherent, abduction of the arm separates the skin from the dome of the axilla, as the action of a bellows. A dead space results which fills with fluid and air that eventually leads to granulation and final scarring. In contradiction to previous custom, it is now considered wiser to defer active exercise regimen until approximately the 5th day postoperatively. At this time separation is unlikely to occur; the patient has not been subjected to painful early postoperative exercises; she has regained her confidence; and she is more emotionally responsive to the importance of early recovery of full range of motion.

Muscular inactivity promotes adhesions in the joint and periarticular tissues causing stiffness and dysfunction. Scarring between the skin and underlying structures will contract and limit range of motion unless prevented by constant stretching. Therefore, once the axillary flaps are adherent, emphasis on a complete program of shoulder joint exercises remains fundamental in ensuring recovery of function. Most patients have satisfactory range of motion within three or four weeks.

Active exercises are stressed following the control of edema and infection, and healing occurs without significant loss of skin. An exercise program is presented by the author, whereby graded motions of shoulder flexion, abduction and external rotation are emphasized. Internal rotation is recovered more easily. Self-care activities of hair combing and brushing, feeding activities, and others are incorporated in the program.

—Virginia M. Barr, O.T.R.

HOSPITALS, Special issue on rehabilitation facilities, March, 1956.

This issue of *Hospitals* is of particular interest to occupational therapy.

The editorial by Mary E. Switzer gives important overtones of current national thinking. The featured article is written by Leonard A. Scheele, M.D., Surgeon General, Public Health Service. The article itself is written with care: accepting the handicaps of building as they are and presenting continuity to future plans; again, this article has importance not only for its content but for the official point of view presented from this office. Other important articles follow. They may not be as national in scope, but are important to occupational therapy for they give us a chance to see ourselves in action as others see us.

It is interesting to note how the major elements of rehabilitation facilities are grouped. Professionally, it is important for us to keep abreast of publications such as this and to remember that professional insight cannot be gained by reading only those things we like and agree with. The beginning of professional maturity and the ability to constructively solve our problems is based on such conflicts.

—Barbara Locher, O.T.R.

PRODUCTIVE LIVING FOR THOSE WITH HEART DISEASE: THE ROLE OF PHYSICAL MEDICINE AND REHABILITATION, L. B. Newman, M.D., R. R. Wasserman, M.D., Craig Borden, M.D., *Archives of Physical Medicine and Rehabilitation*, Vol. 37, No. 3, March, 1956.

The authors of this article have made a careful study concerning the problems of rehabilitating the cardiac patient to a normal and useful life and one of gainful employment.

With the integration of all hospital and community services available, these doctors have set up a definite criteria for a treatment program for the cardiac patient. It is one which may be used as a guide for all physicians and therapists who are concerned in the treatment of the patient. Emphasis is placed on the fact that this program is to be used only as a guide. It is unrealistic to believe that the program verbatim can be applied to all cardiac patients, but rather that complications, such as hemiplegia, diabetes mellitus, hypertension and obesity must be considered for necessary modifications. On the other hand the program for those with a less severe myocardial infarction can progress more rapidly than the established program allows.

The program must be carefully supervised by physicians and therapists at all times during treatment so that the effects of the prescribed activity can be evaluated and changes made as indicated by the development of any unusual signs or symptoms.

The rehabilitation program covers a six weeks period and begins at the bedside with an orientation to the illness. This may help the patient develop a more optimistic outlook on life and alleviate fears and anxieties which usually develop in anyone who is seriously ill.

The program then goes on to initiate mild exercise,

specifically to prevent the shoulder-arm-hand syndrome, which is a common complication in patients with coronary heart disease, occurring most frequently in the left shoulder. Exercise is continued throughout the entire program with progression compatible with the patient's condition. Eventually the patient begins standing, walking and climbing stairs.

Simple self-care activities begin early in the treatment and continue throughout as feasible. Sitting in a chair by the bed starts with short controlled periods, which gradually increase until the patient can ambulate.

Simple activities in occupational therapy can begin as early as the second week in this controlled program. Activities must be limited as to time and chosen according to the amount of physical exertion required. Occupational therapy continues throughout the program, eventually bringing the patient to the shops and utilizing both sitting and standing activities.

Educational therapy begins with selected reading, writing, typing, etcetera and eventually leads to vocational advisement and guidance.

By the fifth week, the authors feel that the patient is ready to consider his future from the economic point of view and vocational exploration is begun. The patient's work capacity is evaluated and then various jobs are considered which are possible with his disability. It may be his former job (which might have to be modified) or a new job if his former job is too strenuous.

Before leaving the hospital the patient is informed as to any diet which might be necessary depending upon his condition.

The authors have outlined a study from the United States Department of Labor, Labor Statistics Bureau. It gives a comparison of the production of the individual with a cardiac condition as against those without all of whom are performing similar jobs.

—Elizabeth M. Nachod, Capt., AMSC (OT)

OHIO'S HEALTH, Vol. VIII, No. 3, March, 1956.

This issue has many articles of interest to occupational therapists and the cover is a very attractive diagram of the allied professions concerned with the team approach for rehabilitation.

The first article, entitled "Rehabilitation: the Challenge We Must Meet," is by Dr. Ralph E. Dwork, director of the Ohio Department of Health. He objects to divorcing rehabilitation into a separate entity, but rather advocates the plan should be "to make rehabilitation a part of every service. . . ." and all treatment should involve the cooperation of the patient. Personnel should work *with* a patient.

Dr. M. Peszczynski, chief of the department of PM & R, Highland View Hospital, Cleveland, entitled his article "Rehabilitation in a Chronic Disease Program." He limits his discussion to patients with long-term neurological and/or orthopedic disabilities. He would like to see emphasis placed on personalized continuity of care so that hospitalization does not become a permanent disposition. Training of professional workers must include long-term treatment procedures for patients with a chronic disease. Community facilities must be utilized for benefit to these patients so they may "ultimately contribute to, rather than drain, the resources of the community and of the nation."

In "A Team Approach in Rehabilitating the Cardiac Patient," members of the Cleveland Work Classification Clinic discuss the purpose of their clinic and the value of the team approach as it is applied in tuberculosis, syphilis and diabetes.

These are the main articles of interest to occupational therapists but many other articles impress one on the excellent program foreseen for Ohio.

THE CASE AGAINST PAYMENTS FOR DISABILITY, Office of the American Medical Assoc., Washington, Vol. 160, No. 12, 24 March.

The Social Security amendments, H.R. 7225, have been the source of much controversy, since hearings conducted by the Senate finance committee on January 25, 1956. The section of the bill proposing cash payments at age 50 to those certified as "totally and permanently disabled" has led to criticism by the American Medical Association, by state medical societies, by physicians, by rehabilitation specialists, and by various insurance associations. It is generally agreed that making such cash payments under social security would inhibit rehabilitation and endanger the entire social security structure.

In this statement are included quotations from various witnesses opposed to the disability section and extracts from the testimony of others who indicate some of the inherent weaknesses of the proposed plan.

The case under study is divided into specific sections for discussion. Part I points out the need for an objective and thorough investigation of the long range implications of the entire social security program, not only because of the cost of the new proposal but because it is a new type of benefit arising not from advanced years but from physical or mental ailment. Part II emphasizes the medical reasons which alone would make the program difficult to manage: questions of determination of disability as outlined in the plan, of interrelatedness of physical, neurological and mental conditions. To be labelled as "totally and permanently disabled" in itself would tend to have an undesirable emotional effect on the individual patient. The subjective "will-to-get-well." the desire to be rehabilitated, would be competing with the objective security of monthly payments if disability be proven. In a society of gradually increasing numbers of older persons, to encourage retirement as early as age 50 would be a costly and unwise move.

Part III discusses the impossibility of calculating the costs of this program, or of estimating the loss to the labor market of handicapped persons now productively employed who might withdraw in favor of the security of the pension roll. Furthermore, elimination of any age restriction might logically be anticipated once such a program be adopted. Part IV elaborates on this probable "pressure for expansion." Not only might the age limit for disability payments be dropped, but it is suggested that next a program of payments for temporary disability would be sought, as well as survivors' benefits. It is speculated that the federal-state rehabilitation services might eventually be broadened into a federal medical care program leading to the establishment of even possible government medicine under political control.

The problem of the permanently and totally disabled is not denied. But it is felt that there are federal, state, municipal or private services already available to take care of the disabled, without endangering the social security structure. Rather than pensions for the disabled, it is urged in Part V that the emphasis be toward a positive rehabilitation program of medical and vocational assistance that would offer these persons a further chance for productive and meaningful lives.

—Dorothy Street, Lt., WMSC (OT)

REHABILITATION OF THE ELDERLY PATIENT WITH PINNED FRACTURE OF THE HIP, Mieczyslaw Peszczynski, M.D., *Journal of Chronic Diseases*, Vol. 2, No. 3, March, 1956.

The discussion of preambulation training and the three-point crutch walk are clearly stated and an excellent guide for therapists dealing with elderly people who need such training. Because of instability in older people, Dr. Peszczynski's adaptation to their particular needs is of great value.

SENSORY LOSS WITH POLIOMYELITIS, Fred Plum, M.D., *Neurology*, Vol. 6, No. 3, March, 1956.

In previous literature there have been cases of poliomyelitis reported having sensory loss as well as muscle paralysis. These have been rare and the evidences for positive diagnosis were not complete.

This presentation describes two patients who suffered severe sensory loss in lumbosacral dermatones. In each case the course of the clinical illness was otherwise typical of acute poliomyelitis with extensive paralysis including respiration and swallowing. The first patient showed a rising antibody titer to the virus in her serum, and the polio virus was isolated from the stools.

The sensory defects involved all modalities, although vibration and position sensation were affected most. Loss of motor power was nearly complete in these segments where sensation was impaired.

The clinical changes observed could have been caused by either a diffuse myelopathy of the lumbosacral cord or extensive damage to dorsal root ganglion cells combined with necrosis of anterior horn cells in the same neural segments. Neuronolysis of the dorsal root ganglion is regarded as the more likely cause of the sensory loss. —Rose M. Elliott, O.T.R.

TREATMENT OF THE SPASTIC HEMIPLEGIC, George Deaver, M.D. *American Journal of Physical Medicine*, Volume 35, Number 1, February, 1956.

The type of cerebral palsy most frequently seen is the spastic hemiplegic. Disabilities resulting from the cerebral accident are limitation of motion at the joints and spasticity of the muscles on the affected side. The signs usually found are the stretch reflex, hyperactive reflex, positive Babinski and ankle clonus.

The affected limb is usually held in the flexed position with fingers flexed over the thumb. As the child tries to flex the forearm, the shoulder is elevated and the arm is abducted and internally rotated. The affected leg has spasticity of the adductors, flexors of the hip and knee, and dorsal flexors of the foot. If the knee is flexed and the thigh flexed against resistance, the foot will dorsiflex and usually supinate (Strumpell's phenomenon).

The purpose of treatment is: (1) prevent deformities, (2) correct deformities if they occur, (3) train affected extremities to maximum functional capacity, (4) teach the child performance of self-care activities and ambulation in, (5) a normal manner.

1. To prevent deformities maintenance of normal range of motion is necessary at the shoulder, elbow, wrist and fingers of the affected upper extremity and the hip, knee and ankle of the lower extremity. The exercise program must include passive stretching of the joints with external rotation at the shoulder, extension and supination at the elbow, extension of the wrist, stretching hamstrings at the knee joint to prevent flexion contractures, and dorsiflexion of the ankle to prevent a short "heel cord." The therapist should instruct the parents on exercise techniques. A cock-up splint for the wrist and a night brace for the ankle may be necessarily prescribed.

2. Intensive stretching and proper bracing will often correct deformities; if not, a plaster wedging cast or tenotomy may be considered.

3. Primitive movements of the hip and knee joints are retained for training of the lower extremities for near-normal walking and carrying the body weight, however, ankle movements, only found in man and higher mammals, are severely affected. If the patient is in the standing position and the knee and thigh are flexed for walking, the foot will dorsiflex and usually supinate. The child or adult, when asked to walk will not bend the knee because the foot supinates. A stiff-legged gait will develop which is difficult to correct. A double bar, short leg brace should be prescribed to prevent plantar flexion and supination of the foot. With this brace the patient's fear of falling is overcome, and a more normal walking pattern may be taught. Strumpell's phenomenon may be utilized if the patient learns to flex the knee of the affected extremity before raising the foot from the ground. This will dorsiflex the foot.

The return of function to the upper extremity requires longer intensive training. A training program should be instituted in the child, who will have a normal life expectancy; however, to train the affected arm of an adult hemiplegic is useless. For the spastic arm the exercise should begin at the shoulder and follow a definite pattern. Four objectives should be kept in mind: (1) at the shoulder joint obtain active flexion, extension, abduction, adduction, internal and external rotation. (2) At the elbow obtain flexion and extension without abduction at the shoulder. (3) After flexion and extension of the elbow are performed without abduction at the shoulder, obtain supination of the hand. (4) Finally, obtain extension of the fingers and thumb without flexion of the wrist. This is the most difficult movement to achieve and may never be possible.

4. The chief objective of the physically handicapped is teaching self-care activities. Parents should be instructed to have their child perform all the self-care possible after considering the child's physical and mental ages and the degree of disability.

5. Teaching the child self-care of daily needs and near-normal walking are the most important parts of the program. Children are not interested in their appearance, but adolescents may develop personality problems when they realize their difference from others because of abnormal walking appearance. It is relatively easy to train a child to walk correctly, but difficult to break incorrect patterns when once established.

—Virginia M. Barr, O.T.R.

SPECIAL EDUCATION FOR THE EXCEPTIONAL, 3 volumes; edited by Frampton, Merle E., and Gall, Elena D., Porter Sargent, Boston, $5.50 each.

Vol. I. *Introduction and Problems*, 480 pp.: Special education is defined, its history is traced, and a comprehensive survey and discussion of the many problems involved in this special field are offered. Training problems of special class teachers are dealt with in some detail. Discussion of how one university meets this problem is included. This volume carries bibliographies for general use and reading material relating to this field. In addition, it has lists of directories, manuals, magazines and periodicals, lists of official and voluntary agencies, colleges and universities offering courses in special education, physical therapy and occupational therapy.

Vol. II. *The Physically Handicapped and Special Health Problems*, 704 pp.: Each area of special education for the many types of handicaps are dealt with separately. Included are lists of agencies, periodicals, and comprehensive bibliographies.

Vol. III. *Mental and Emotional Deviates and Special Problems*, 500 pp.: This volume presents comprehensively individual sections on the gifted, the neurologically impaired, the epileptic, the emotionally disturbed, the mentally handicapped, and special education services in related areas. Each section carries its own bibliography and complete list of reference materials.

Here in three volumes the reader has fairly complete and up-to-date reference material covering every type of disability with which special education is involved. Volume III should be of special interest to the occupational therapist since so many disability areas are included and dealt with in such detail. Each subject in every section throughout has been discussed by a recognized and well known person in his field.

—Eleanor C. Kille, O.T.R.

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Occupational therapist wanted for staff position in a day clinic, treating pre-school children suffering from cerebral palsy and related neurological conditions. Salary commensurate with experience. Liberal vacation, holiday and sick leave plan. Write: Mrs. Margaret G. Hogan, Director, Cerebral Palsy Training Center, Binghamton City Hospital, 25 Park Avenue, Binghamton, New York.

Staff occupational therapist, to supervise industrial therapy section, wanted immediately at Utah State Hospital, Provo, Utah. Working conditions are good and time-off provisions are liberal. Salary $4200 per year. Applicants must be registered or eligible for registration. Please direct inquiry to Director, Rehabilitation Therapy, Box 270, Provo, Utah.

Opportunity for occupational therapist in progressive 1700-bed psychiatric hospital near Boston. Civil service. Paid vacation, holiday and sick leave. Excellent group insurance and retirement benefits. Salary $3000-$3720. Contact Head Occupational Therapist, Metropolitan State Hospital, Waltham, Mass.

Wanted: occupational therapist as an addition to staff in a 540 bed general hospital. Starting salary $250 to $300 per month. Pleasant working conditions. Two weeks paid vacation per year, 28 days sick leave and uniforms laundered. Opportunities for social activities for a single girl in a growing university city. Write: Naida Perkins, O.T.R., Greenville General Hospital, Greenville, South Carolina.

Occupational therapist for well equipped outpatient center established 1950, offering nursery school, speech, occupational and physical therapy to cerebral palsied children. Beginning salary $3600, more if experienced. Regular increments. Five day week, four week summer vacation, nine day Christmas holiday, sick leave, and social security. Write Miss Virginia Pettit, Director, United Cerebral Palsy of Cincinnati, Inc., 3601 Victory Parkway, Cincinnati 29, Ohio.

Two staff positions for registered occupational therapists available August 1 due to expanding programs in the geriatrics division and in the tuberculosis service. Paid vacation and sick leave; 13 holidays a year; 40 hour week; starting salary $3492.00 with annual increases to $4200; excellent retirement plan. Write Director of Personnel, Baltimore City Hospital, 4940 Eastern Avenue, Baltimore 24, Maryland.

Occupational therapist, registered, for functional activities in an expanding physical medicine and rehabilitation program. Salary open. Pleasant surroundings and working conditions. Apply Superintendent, St. Barnabas Hospital, New York 57, New York.

Registered occupational therapist wanted for an orthopedic hospital and rehabilitation center for children within commuting distance of New York City. Salary open. Liberal personnel practices. Apply: Jacob Reingold, Executive Director, Blythedale, Valhalla, N. Y. Tel.—LYric 2-7555.

Immediate opening for director of occupational therapy department. Salary open. Pleasant surroundings and working conditions. OT dept. now operating in the New Norfolk State Hospital Administration Building, with spacious quarters, new and modern equipment. Contact Dr. C. G. Ingham, Supt., Norfolk State Hospital, Norfolk, Nebraska.

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Occupational therapists—junior and senior grade. Salary range: $335.00 to $485 per month minus $25.00 for full maintenance. Salary dependent upon experience and training. Duties: occupational therapist in state mental hospital with a reorganized, expanding program. Sectional supervision of OT units in admission service, intensive treatment service, and tuberculosis service. Senior therapists may supervise junior therapists, student nurses, and OT aides. Write Personnel Office, Logansport State Hospital, Logansport, Ind.

Registered occupational therapist as assistant to director of rapidly expanding department. Six shops in 1800 bed state psychiatric hospital; ward O.T. programs being developed. Exceptionally well equipped department with staff of one O.T.R. and eight O.T. aides. 3½ hours to Boston via Maine Turnpike. Good personnel benefits; salary open. Write to Audry Hill, O.T.R., Box 724, Augusta, Maine.

Registered occupational therapist for physical disability program in progressive hospital. Present staff of ten O.T.R.'s in respiratory polio, multiple sclerosis, physical disability and rehabilitation service, home care, and upper extremity research project. Clinical training center located between Los Angeles and beach area. O.T.R.'s under orthopedist supervision. Los Angeles County civil service requirements: graduation from an accredited school of occupational therapy and citizenship. Contact: Mrs. Miriam Doyle, O.T.R., c/o Occupational Therapy Department, Rancho Los Amigos Hospital, Hondo, California.

Good opening for an occupational therapist who is capable of organizing the occupational therapy services in a new admission and intensive treatment unit. Dynamic rehabilitation program requires candidate with good potential for teaching and supervising other occupational therapists, students and affiliates. Available to graduates of approved schools with two years experience. Salary $4740.00. Apply to William F. Green, M.D., Fairfield State Hospital, Newtown, Connecticut.

OT director wanted in rehabilitation center serving 43 crippled children. Clinical training affiliations. Salary open. Write Miss Helen Crathern, Dir. of Personnel, Crotched Mountain Foundation, Greenfield, N. H.

Qualified person to plan, establish and direct new work evaluation center in Toledo, Ohio. No funds to raise—salary open—list professional training, experience, references, approximate date available. Write L. O. Kirk, Exec. Sec., Goodwill Industries, 601 Cherry St., Toledo, 4, Ohio.

Staff positions open for registered occupational therapists for a continually expanding program at Colorado State Hospital, Pueblo, Colorado. Progressive teaching institution; clinical training program; paid vacation; sick leave; retirement program. Maintenance and laundry available. Pleasant surroundings and working conditions. Write Thomas L. Bartley, Personnel Director, Colorado State Hospital, Pueblo, Colorado.

Occupational therapists for State of Connecticut at Commission on the Care of the Chronically Ill, Aged and Infirm, needed for expanding programs in rehabilitation centers. Unusual advantages to a staff interested in the rewarding field of physical medicine and rehabilitation at the State Veterans Hospital near Hartford and Woodruff Center, New Haven. Administration oriented to a team approach toward rehabilitation. Wide range of craft supplies, activities and equipment. Starting salaries: occupational therapist, $3660; senior occupational therapist, $4020; three weeks' vacation, liberal holidays and sick leave. Full maintenance at $316 a year. Opportunities in state mental hospitals also. Write Glendon A. Scoboria, State Personnel Director, State Office Building, Hartford, Connecticut, or to the Commission direct.

Two O.T.R. positions open September, 1956, (male or female) in expanding 900 bed home for chronically ill and aged. Salary starts at $3583.00 with yearly increments to $4108. 37½ hour week; 20 days sick leave; 10 days vacation; 13 holidays; pension plan. Write—Mr. Raymond J. Groller, Superintendent, Riverview, Department of Public Welfare, 7979 State Road, Philadelphia 36, Pennsylvania.

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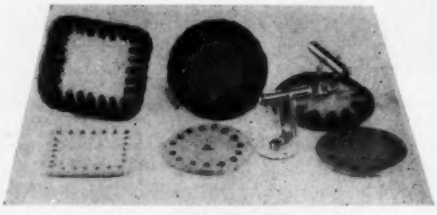

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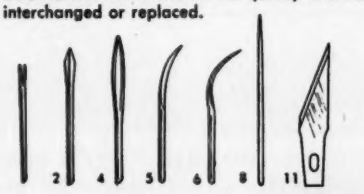

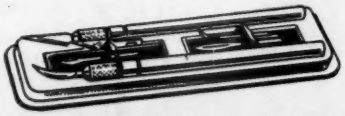

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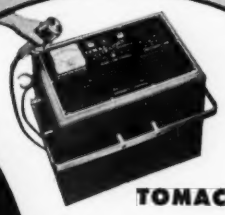

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Conference Digest Part II

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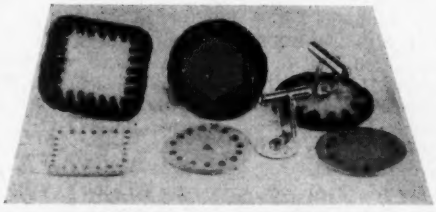

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Conference Issue

July-August 1956 Vol. X, No. 4, Part II

Digest of Speeches from the American Occupational Therapy Association Institute

October 24-25, 1955, San Francisco, California

Theme

The Patient's Point of View

Foreword

The first meeting of the 1955 institute committee was held on June 10, 1954. Having been encouraged by the success of the institute workshop held in Washington, D. C., in 1954, the committee agreed that another workshop was in order and selected Dr. Ruth Tiedeman as consultant. Dr. Tiedeman, a professor of psychology at San Jose State College, has had wide experience in conducting workshops. She has been consultant in the field, and staff member of workshops sponsored by the committee on human development at the University of Chicago. She has, also, directed workshops on human development and human relations at the University of Arkansas and for the Hogg Foundation for Mental Health in Texas. In 1950 and 1953 Dr. Tiedeman directed workshops for the National Institute of Mental Health for workers in vocational rehabilitation and related fields.

With the recommendation and encouragement of Miss Mary Frances Heermans, educational secretary of AOTA, the committee felt that the logical follow-up of the 1954 institute in interpersonal relations which emphasized staff relationships, was the consideration of the "Patient's Point of View." A study of the factors influencing this viewpoint suggested the sub-topics for the panel members as follows:

Moderator:

Hugh Coffey, Ph.D., professor of psychology, University of California, Berkeley.

Panel:

Maurice Grossman, M.D., clinical instructor in psychiatry, University of California, Berkeley, and assistant clinical professor in physical therapy, Stanford University, Palo Alto; Mabel Whitehead, Ph. D., head of department of special education, San Francisco State College, San Francisco; Ruth Cooper, Ph.D., associate professor, School of Social Welfare, University of California, Berkeley; Gregory Bateson, anthropologist, VA Hospital, Palo Alto; Margaret Gleave, O.T.R., executive director, The Curative Workshop of Racine, Wisconsin.

Resource Consultants:

Ann Bradfield, Ph.D., director of guidance and special services, Board of Education, Alameda; Carrie Chapman, M.D., chief of section of physical medicine, VA Hospital, Oakland; Mrs. Emory Dorndorff, president, Parents' Group of California Crippled Children's Society; Victor Guthrie, medical social worker, VA Hospital, Oakland; Lee Helsel, coordinator of rehabilitation therapies, State Department of Mental Hygiene, Sacramento; Margaret Knott, head of physical therapy department, California Rehabilitation Center, Vallejo; Jane Paynter, director of nursing education at Langley-Porter Clinic, San Francisco; Ward Rasmus, Ph.D., speech department, San Jose State College, San Jose; Carl Schultz, Ph.D., vocational counsellor, VA Hospital, Oakland; Mrs. Esther

Spencer, chief of bureau of medical social service, State Department of Public Health, Berkeley; Jane Stoddard, consultant in special education, State Department of Education, Sacramento; Hilda Taba, Ph.D., special education, education department, San Francisco State College, San Francisco; Brahna Trager, administrative officer, State Department of Public Health, Bureau of Crippled Children Services, Berkeley; Mrs. Elise Willson, office of vocational rehabilitation, Department of Education, San Jose.

The following occupational therapists acted as coordinators: Sue McHenry, O.T.R., Jean Jensen, O.T.R., Jane Lane, O.T.R., Doris Cutting, O.T.R., and Evelyn Alexander, O.T.R. Fourteen resource consultants were invited to participate in the conference. Thanks are due to the registered occupational therapists who acted as leaders and recorders during the institute. Unfortunately, the recording machine broke down during the summary reports so these are incomplete and I am sure you will be as disappointed as we are to have lost this part of the program.

Respectfully submitted,

Institute Committee:

Doris L. Cutting, O.T.R.
Janet M. Juve, O.T.R.
Eleanor P. Mann, O.T.R.
Guinevere Wright, O.T.R.
Louise Wade, O.T.R.
Mary D. Booth, O.T.R., *Chairman*

General Session, Monday, October 24, 9:00-10:15 a.m.

THE EMOTIONAL REACTION OF THE PATIENT

MAURICE GROSSMAN, M.D.*

It is very encouraging to find emphasis on studying "the patient's point of view." It is even more encouraging that there is this growing recognition that the emotional reaction of the patient will be of importance in the success or failure of occupational therapy procedures. To recognize that patients undergoing therapy display emotional reactions is commonplace. It is more difficult to recognize and accept that what the patient *says* and *shows* emotionally may not be the emotional reaction that needs to be understood in conducting such therapy. Therapeutically speaking, we rarely mean the overt emotional display of the patient; more often we deal with the turmoil below the surface.

It is well to recognize that primarily the emotional reaction of the patient stems from certain needs and wishes that the patient has. The degree of availability and extent to which the patient may accept fulfillment of these needs and wishes will determine the pertinent emotional reaction. Both the needs and wishes, together with the degree of availability, and acceptability or unacceptability to the patient, may in some cases be realistic. In many more cases they may be representations of unmet needs and wishes and taboos of the past that no longer exist and in reality need cause the patient no concern, yet evidently continue to do so. The failure to satisfy these unmet requirements need not necessarily be pathologic. Often the emotional pressure of unsatisfied needs stimulates the patient to new endeavors in those accomplishments which we deem success, whether in the normal everyday fields of living or in overcoming physical handicaps during occupational therapy or similar procedures.

Nevertheless, the forces of restriction which prevent the patient from seeking out, securing or accepting gratification of these emotional needs and wishes, or the unavailability of sources for satisfying these desires, lead to anxiety and the various emotional responses. These forces of restriction and unattainability at one time in the patient's life were external forces such as parental control and other forms of authority, or the reality factors having to do with supply and demand. In the course of time, much of these forces of restriction became a part of the patient's own forces of restriction and now operate just as effectively, perhaps more so, than the original external ones. For instance, many of us have many impulses during the day that we don't permit ourselves to indulge in. Nevertheless it's the emotional pressure behind these various needs and wishes that motivates all our behavior. Whether or not we permit ourselves to find satisfaction for these needs give rise to many of the emotional reactions that we are discussing today. Not only do we have these needs and wishes but we also have various forces within ourselves that lead us to deny ourselves and restrict ourselves in our activity. So by and large our emotional reactions develop in the struggle between satisfying these needs and our inner control.

I will not discuss the basic origin of these needs, but will remind you that they probably start physiologically. In any case these basic wishes, needs or drives become so broadened in our pattern of development and living that they are manifest in all areas of human behavior. First there is desire; there is satisfaction if desire is

*Clinical instructor in psychiatry at the University of California and assistant clinical professor in physical therapy at Stanford University.

gratified. We may rapidly give vent to anger at not getting; or hating, the anger combined with fear; and fear itself if the need is fundamental and if danger accompanies a lack of gratification. These various primary reactions may then give vent to secondary ones through our psychological handling of these primary emotions. Depression for instance, indicates another emotion basically. The fact that we have the word "euphoria" to distinguish it from a feeling of well being indicates that euphoria or some symptoms of well-being are anything but that. There is the great reaction of guilt that motivates so much of our behavior. All of these are in the pattern of existing emotional reactions that may or may not be apparent to the patient and certainly may or may not be apparent to us outside observers. I think again, that a primary concept to keep in mind is that when we see the individual as a patient, even if a child, a large part of the emotional reaction pattern of this individual has been established. He already has patterns of behavior which he has found best for him. He also has found ways not only of getting satisfaction but ways of denying himself satisfaction or putting up with the frustration of not getting. By and large we have an individual with a well developed pattern of emotional reaction.

I would like to remind you that in dealing with the emotional reactions of a patient something has been added to his basic personality reaction patterns. To understand then the emotional reaction of the patient you not only have to know the patient himself, but on top of that you have to find out what his illness means to him. It is true that many illnesses have emotional meanings that are common to that illness for most people. In particular you have to know what this illness means to this one person as an individual and in terms of his previous pattern.

That additional concept isn't enough. You are going to be concerned with him as occupational therapists. You then must know what occupational therapy with its emotional significance means to him. Not merely the types of crafts that you are going to utilize in your therapy but the mere fact that he is receiving occupational therapy will affect the picture. By and large most patients are not treated in isolation. They are treated in a group setting. You have to know what being treated in the presence of other patients means to him. Most important of all is going to be the phenomenon that while he is taking part in occupational therapy he is taking part in a very meaningful relationship with you yourself as a person, first of all as an occupational therapist, that is true, but more important, with you yourself as a person. Not to be forgotten are the dynamic forces at play between the patient and the members of his family which have been altered as the illness has altered the life of the patient in respect to that family. It will not be until you understand the interactions between his basic personality, the meaning of his illness, the meaning of occupational therapy and the interactions between all these people focused into the relationship between you and the patient, will you really get a full picture of the emotional reactions of patients.

I am trying primarily in this presentation merely to let you know some of the factors that are involved in studying the emotional reaction of the patient. I would like to remind you again that in studying the emotional reactions of patients, what you see is the end product of the emotional reactions of patients altered, influenced and always distorted by all the factors I have mentioned; first of all the acceptability or non-acceptability of his wishes; second, the method he has developed in a lifetime of hiding from himself, as well as the world, what these wishes are; and on top of that hiding from himself and from the world what the illness means to him. After all these and many other forces have worked upon each other, only then do you see the final end result of this interaction and that end result is the emotional reaction that is observable to you in superficial examination.

I think it would be a mistake if you interpret all this by going back to your patients and worrying about every patient in terms of "I wonder what's happening that I don't know about." I think it would be an even greater mistake to look for things that aren't there. But do think in terms of "what is happening to my patient; is he progressing, is he getting well, is he showing accomplishments?" I would like to remind you of that patient whom you have had in therapy for months, who has been cooperative, has been happy; he has taken part in your crafts; he has learned procedures; he has developed various functions he didn't have before, but somehow he still remains a helpless invalid. Keep this in mind, that unless the patient gets well in terms of a return to a functioning individual in his normal sphere, look to his emotional reactions, look underneath the surface for emotional reactions and keep in mind all the sources that must be understood to build in your own mind what has taken place. By and large your understanding of emotional reactions will depend on your ability to create in your own mind a pattern of the personality of the patient as you see him, beginning with his personality and understanding all these divergent forces.

To understand the emotional reactions of the patient in the coming discussions, it might be well to ponder the effect of these factors. All of them together as they augment and cancel each other

out will determine what the end product will be as recognized in the patient's behavior. They will influence such factors as motivation. It might help you understand why I reject the concept "the patient has no motivation." It might help you understand how patients may be motivated not only toward recovery but might be motivated to remain invalids, and that the end result of these opposing psychological forces will eventually be determined by that behavior which in the long run will create the greatest amount of *psychological* gratification of the patient, even though to superficial examination the behavior does not seem to be in the patient's best interests.

THE PATIENT AS AN INDIVIDUAL

MABEL WHITEHEAD, Ph.D.*

When speaking of the "patient as an individual" from the educator's standpoint, I am going to dwell upon the elementary and secondary school years. I believe if we do a particularly good job at these levels we will have a firm foundation upon which to build in later years when the handicapped child faces the problems of becoming an adult with whatever additional complications his remaining disability engenders.

The patient who comes to us is a composite of all his past experience, his present situation and his hopes and fears concerning the future. Sometimes the past is so charged with trauma of various kinds and degrees that it is almost impossible for him to attend profitably to the on-going program centering about his immediate needs and ways of meeting them. For this individual, the immediate situation must be made so meaningful, so challenging, so satisfying, that he will be able to forget the past experiences, thinking of them only as stepping stones which have brought him to the realities of today.

Each of us who would help the handicapped child has skills to sell. We are all educators: the bus driver, the attendant, the therapists, the doctor, the psychologist, the supervisors, the administrators, as well as the parents and those of us who call ourselves teachers; we are teachers, all of us, for good or for bad. How can we each make our best contribution? How can we, at the same time, be aware of the value and need for the excellent contributions of the array of others like ourselves with worthy and necessary skills to offer, and to help those contributions be most rewarding both to the recipients and the donors?

Herein lies the problem. Our very anxiety to make a worthwhile contribution to the handicapped child may prevent us, lest we are most cautious, from enabling him to reap the maximum benefit from the skills which we, singly or as a group, have to offer. It takes a very generous individual to be able to place importance equal to his own, upon the contributions of all others who too have specialized skills to sell. Difficulties in cooperation are not unlikely.

Let us look at the case of Carol. Carol is six years old, cerebral palsied from birth. She attends a school for crippled children. In each of Carol's school days there is a constant round of physical therapists, occupational therapists, teachers, matrons, administrators, bus drivers, brace-makers, speech therapists, perhaps a supervisor or two, to say nothing of the school nurse, the psychologist, the doctor, the representatives of public and private agencies who also have a necessary interest and concern in the activities of the school.

During this well-filled day, Carol becomes quite aware that the physical therapist feels she does not have enough walking practice, either at school or at home; that the occupational therapist is sure she does not cooperate fully; the speech therapist thinks she should have made more progress than she has, and probably did not because her parents did not carry through on therapy suggestions as well as she had hoped they might. If Carol were able to interpret another set of complications, she would know, too, that there are various school supervisors along the way who are often very perplexed because they frequently are little versed in the problems of cerebral palsy. Further, they may work under the direction of an administrator equally inexperienced in the specific needs and problems of Carol, and who have been pressured into establishing the services for her group when he would have preferred opening a new kindergarten for a group of normal children.

What does this mean to Carol? Of course she cannot analyze all the intricacies of relationships involved, but the one result she can interpret is lack of unity. And how will she respond? Sometimes the Carols in such groups are likely to have many loyalties, some children respond with bewilderment as to just what really is expected of them, others may be over-anxious to please. Occasionally, children give "surface" cooperation to each individual, while nothing is deeply effective. Active resistance is not uncommon. Casual nonchalance is not unusual, nor is it unusual for a child to be torn in loyalties as he senses the con-

*Head of the department of special education at San Francisco State College.

fusions and difficulties of cooperation between the many people, each of whom has his own bevy of problems even though he may have a sincere interest in being kind and helpful to the Carols who are looking to him for direction.

Why does this happen? Does it have to happen? Answering the last question first, I do not believe it *has* to happen but that it does happen much more frequently than any of us likes to admit. First of all, I believe those of us who have skills to offer Carol need to improve our individual and mutual communication. Because we do not understand well enough nor try sincerely enough to find out what the purposes of each worker are and how he expects to achieve them, we tend to segment the child in our selfish anxiety to give him the benefit of our individual skills. We need to give attention to better communication with the child and his family. I believe we are lax in our appreciation of the child's place as a communicating member of various groups in which he has interests and ties of varying strengths. I believe our communication with parents of handicapped children is likely to be especially ineffective. Those in the class of so-called "professional experts" are too prone to make a determination as to what they think the problems of the parents are and what should be done about them without really finding out what either the child or his parents feel the problems are and what we might most helpfully do in assisting them to find solutions.

Secondly, we do not serve as well as we might, I believe, because we do not use records as cooperatively as we should. To be sure, many records are confidential and must be kept so. This does not preclude their cooperative use. I believe educators, especially, do not have the freedom of use of records as much as they need them. Educators too are professional, and frequently they are the persons who have responsibility for the child more hours a day, more hours a week than anyone else except the parents. Often they are expected to handle this responsibility with less information to guide them than anyone else who has a part in the treatment and training program. Whether they will it or not, because of the balance of time the child spends in the schoolroom, teachers become responsible for a tremendous job of coordination as the youngsters go and come from the home base of the classroom to receive the various services, treatment and training set up to meet their unique needs.

Thirdly, I believe our efficiency is too often cut down because we have a tendency to "do to" a child rather than to be ever cognizant that true development comes only from within the child. We must become more intelligent planners *with* children and more excellent teachers in helping the child develop from within through such planning. With practical application of skills in these areas, we should be more able to assist handicapped children to find reasonable goals, and to know what must mutually transpire if those goals are to be attained. If this hope is to be realized, the child must have continuous active participation in the planning of his goals and the routes toward them; he must have valid reasons for putting forth the effort necessary to work toward them with confidence enough in their rightness and reasonableness to justify the tremendous effort it is so often necessary to make to achieve them; coupled with this effort, we must help the child to use tempered judgment in constant evaluation of his progress along the way.

Fourthly, there is a discrepancy between our professed belief that the child patient should be considered as a developing individual and in our practices in implementing this belief. Let us take a second look at Carol and the fabric of which her day is made. From the many impacts of personalities with their many skills to offer, Carol consciously or unconsciously forms an analysis and evaluation which has meaning for her. In this summary will be included all the feelings about all the people and all of the services and events surrounding them which are contained in each day. Carol will react in terms of whatever meaning the situation has for her.

Carol has reacted to all the days which came before today. She will also react to the tomorrows left to her. We cannot change her past, nor can we superimpose a future. Everything we can hope to achieve hinges upon the successes we can total in successive todays.

Let us, then, take a critical look at our todays in terms of the Carols with whom we spend them. What can we do in order to insure that these youngsters under our care will have more yesterdays, each of which is truly a "dream of happiness," and tomorrows which are "visions of hope"? I believe this, from an educator's standpoint, is our greatest challenge!

HOW THE FAMILY INFLUENCES THE PATIENT

RUTH COOPER, Ph.D.*

Any discussion of how the family influences the patient must be preceded by some clarification concerning family interrelationships, since the very essence of family influences involves the emotions of the patient as well as the family, and the effects of the emotional reactions of each upon the other. Just as no two individuals are alike, so are no two families alike. Families are influenced by cultural, social and economic factors, and by previous experiences of the family as a whole and each of its members.

In examining family influences upon the patient, it is recognized that these influences cannot be categorized. Therefore, it must be understood that the classification which is made in this discussion is an artificial one for the purpose of organizing the presentation of material. It is proposed to present this material under three major headings. These are: cultural, social, and economic influences; meaning of illness; and family relationships. Their interrelatedness will be apparent in the discussion which follows.

CULTURAL, SOCIAL AND ECONOMIC INFLUENCES

It would seem logical to begin by examining some cultural, social and economic influences of the family upon the patient for, indeed, these may be determinants in whether the ill person ever receives or is permitted to benefit from medical treatment.

Cultural patterns may prevent the seeking of modern medical services, or if these services have been given, may influence the ability of the patient or the family to accept the recommended treatment.

The social and economic situation of the family are determinants in whether the need for medical care is even recognized, whether the patient receives medical attention, and the kind of attention he receives. Families may not seek medical care because they neglect the early signs and symptoms of illness and do not seek help until the patient is seriously ill. Frequently such care is not sought because families are unable to finance it, because medical facilities for those unable to pay for care do not exist, families do not know about them, or because a family cannot ask for medical services for which it cannot pay. In some areas the only services are hospitalization, and even this may be more in the nature of care for the chronically ill than services aimed towards treatment, rehabilitation and the prevention of illness. Thus the very chances of the patient for life and health may be threatened because the family is unable to provide or to seek the medical services of which he is in need.

MEANING OF ILLNESS

Illness may be regarded as something imposed from without as punishment for feelings, for acts committed, or for responsibilities or obligations which were neglected. These feelings of guilt and concepts of illness, disability or handicaps as punishment are frequently found in parents of congenitally handicapped children. Particularly if the child had not been wanted, or if abortion had been considered or attempted, parents will have such feelings even though they may be unexpressed. Such attitudes interfere with healthy relationships with the patient. The mother may need to overprotect the child, to insist on devoting all of her time to it to the detriment of the personality development of the handicapped or ill child as well as of other children in the family who are affected by the mother's attitude toward the patient.

Illness creates barriers between the patient and his family. Basic needs such as dependency may be accentuated with resultant demands on family members which arouse frustrations, hostility and guilt.

Attitudes about certain illnesses develop out of the life experiences of family members. Persons in childhood may have had some contact with or heard discussed certain illnesses about which they have no conscious recollection. But when they encounter this in their own family, these attitudes will affect their feelings about the illness and the patient who has it. To some persons, certain illnesses may mean death and this reaction will communicate itself to the patient in attitudes as well as in overt action. The illness may imply complete disability and the family may be immobilized in helping a patient with the positive elements which would lead to his return to a useful or a self-sustaining life.

Illness may imply a stigma for various reasons; such feelings may create hostility toward the ill person, expressed or concealed. Fear of what others may think about the family if the patient's condition were known may prevent the family from seeking medical care for the patient or from following recommended treatment.

FAMILY RELATIONSHIPS

This leads us into the area of family relationships as they existed prior to the onset of the illness, and as they are affected by the illness

*Associate professor of the school of social welfare, University of California, Berkeley, California.

situation. Just as an individual's capacity to deal with a stress situation is related to his total personality development and his ego-strengths, so the family's capacity to deal with the stress of illness is related to the pattern of the family organization. Its capacity is also determined by the role and status of the person who is ill and how this affects the family equilibrium.

If the ill person is the breadwinner, the father, the family may be adversely affected financially, as well as through the loss of the emotional support and security which the father gave the family. He may postpone medical care, or be unable to accept medical recommendations because of the adverse effect this would have upon the family. Or, if he is forced through physical disability to accept medical care, he may be emotionally unable to benefit by it because of anxiety about his family situation. Illness constitutes for the father a loss of role within the family which may be assumed by the mother or an older child. In instances where the family may be forced to accept financial assistance, the income from this source may be managed by the mother, so that even if she is not employed, she may assume the status previously granted to the father.

Awareness of the family's readiness to function too well without him, or fears that it may do so, may motivate the patient to leave the hospital or discontinue medical treatment before he can do so with safety. Particularly when hospitalized at a distance from home, and family visiting is difficult, the patient may be unable to continue treatment unless he can receive help which is directed towards the maintenance of family strengths and the easing of emotional tensions which impede recovery.

On the other hand, the mother may have depended so greatly upon the father for emotional support and security that she becomes unable to manage the additional burdens imposed by his illness. Thus she may continue to lean upon him at a time when he needs support himself, or her frustrations over her own unmet needs and her additional responsibilities may be expressed in hostility towards him, or may result in her own illness which will relieve her of responsibility she is unable to assume.

If the patient is the mother, the illness may mean her absence from the home or her inability to function as the homemaker within it. This means for her a loss of role, with the same kinds of problems as those which have been previously described. The mother will have additional worries about how the children are being cared for without her, and the extent of these worries will depend upon the ages of the children and their emotional as well as physical need of her.

Obviously disturbances in relationships between parents affect their feelings about and their relationships with the children. This can result in overt behavior of the children which adversely affects the patient and impedes recovery or the ability even to continue medical care.

Family influences, if a child is the patient, must be examined in relation to the age of the child and the stage in personality development. The work of Rene Spitz, Bowlby, Erikson, and others have added much to our understanding of the child's emotional needs, and have had a beneficial effect upon the relaxation of hospital rules and regulations pertaining to the care of children and parent visiting.[1] If hospitalization of the young child is essential, the mother should be helped to visit daily so that the separation from the mother is minimized. Adverse influences upon the patient may result from the mother's indifference or unwillingness to visit frequently, or from her inability to do so because of illness of herself or other in the family, finances or living at a distance. The basic needs of any child must be considered in relation to how the family can be helped to continue to meet them even though the child may need to be physically away from home.

Not to be overlooked are the secondary gains of illness. The person who considered himself a failure, who was unable to keep a job, or who was having problems in the area of family relationships may find illness a socially acceptable way out of a dilemma. Illness may bring attention and demonstration of affection previously denied, and which may result from guilt feelings on the part of those who give it. But illness may be prolonged because of these attitudes on the part of the family. One frequently sees this with children who previously felt unloved. Older persons may derive great satisfaction from care given during illness by adult children who formerly neglected them. The satisfaction derived may be so great that they make no effort to relinquish this dependent relationship.

SUMMARY

In the brief time allowed, this discussion has examined some influences upon the patient attributable to the cultural, social and economic status of the family, the meaning of illness to it, and the family relationships as these existed prior to the illness and as they are affected by the illness. It has been pointed out that all influences are dynamic and inextricably interwoven. The most positive influence the family can exert upon the patient is the emotional security of its love and support regardless of the illness and its possible outcome. This is the best assurance the most seriously ill or handicapped patient can have for motivation toward life and health.

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COMMUNICATION IN OCCUPATIONAL THERAPY

GREGORY BATESON*

The general rubric under which we meet is "the patient's point of view." Let me therefore quote to you a patient. He was speaking not about occupational therapy but about the psychotherapy which he was receiving from me. He said "a contrivance to change the color of a man's eye to please a psychologist is too much."

I offer this sentence to you as a text for your discussions when we divide into smaller groups. "To change the color of a man's eye," that is, to change the speaker's perception of the universe—to change his very self—to please the psychologists, is intolerable. But the word which I want to stress is "contrivance." Are you, as occupational therapists asking for recipes—contrivances—by which you can manipulate the patient away from his symptoms and into a creaky, because contrived, adjustment?

I had some difficulty in achieving a perspective about occupational therapy because you so conceal what you are doing in a jargon of memorandumese. But finally, stripping away these concealments, I have to tell you that what you operate is, in a simpler and more old-fashioned language, a mystery. What the theologians would call a sacrament. You are the administrants of an outward and visible activity, and your hope is that the patient will receive, through your administrations, an inward and spiritual grace—perhaps a discovery about life which neither you nor I can put into words. The modality is somehow to be the carrier for a message to the patient. A message about himself, his relationship to the human universe and the relationship between himself and you.

But the sacrament which you administer has a singularity in which it differs from the sacraments of the church. They are repetitive; the message which is affirmed by baptism is the same message through the centuries whereas every incident in occupational therapy is unique. An unrepeatable message is created by unforeseeable and unrepeatable events. In this respect, the modality resembles art rather than religious ritual.

I know that you call your modalities "crafts"—and perhaps you are wise not to claim too much—but I think you all wish that the modality may be an art. After all, it is inevitable that every act of creation is, *ipso facto*, an act of discovery and the message which you are trying to communicate is a discovery. In the nature of the case, neither you nor the patient can know what is to be discovered. If the patient already knows, no change has been achieved; and if you think you know what the patient "ought" to discover, you are only operating a contrivance.

Perhaps the words which I have used—art and religion and creativity—are frightening. Let me therefore use a less frightening word—"humor"—another modality for self-discovery and for the communication of messages for which we have inadequate words.

Or "education" is another field where, if all is well, the same type of mysterious communication occurs. The educator does not really care whether the student learns Latin provided he does discover that which is to be discovered in the learning of Latin. Similarly, I don't think you care whether the patient learns to work a loom provided that you get across to the patient that message for which the loom is only a modality. But, I warn you, the business is not so simple. Unless the priest—and I mean you—feels that the modality matters more than any other thing in the world, the deeper message is rather liable to fall by the wayside. The teacher of Latin who really cares about Latin is also a better communicator of that which can be learned by learning Latin.

You see, there are very real and important reasons why this sort of inward and spiritual grace which I am talking about cannot be communicated as a simple verbal message. It is not merely that language is inadequate. It is that the priest must care. Mere good intentions toward the patient are not enough. He must also care about the modality, the ritual in its unforeseeable development, where he too may make discoveries about himself.

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PATIENT'S MOTIVATION

G. MARGARET GLEAVE, O.T.R.

Life from beginning to end is activity. Our acceptance of and participation in all activities of living is greatly influenced by many factors. Some of these are pleasant and some unpleasant. Some are anticipated and others are unexpected. No person chooses to become a patient and the degree of philosophic development he possesses will determine his mode of adjustment to this experience. It is necessary that we be aware of viewpoints resulting from just the fact that one has become a patient. Too often in this business of dealing with patients day in and day out we become so accustomed to them that we accept them for what they are rather than for what they can be.

As occupational therapists we realize we are only one part of the team that is responsible for the care of our patients. Our job, through the use of activities, is to direct the patient's treatment program in occupational therapy to produce desired results. It is also our job to develop, maintain and sustain the desire on the part of the patient to participate in this program to his fullest capabilities. From the first day the patient is sent to us to the day he is discharged, good motivation is of prime importance. If this is achieved in occupational therapy it can, to a great degree, assist the patient in his acceptance of the total treatment program.

In studying the motivation of a patient from the occupational therapist's viewpoint I find myself asking this question: What makes this or that patient react the way he does? If undesirable motivation is caused or affected by a mental illness, the patient's problems necessarily become the main object of the occupational therapy program. If however, undesirable motivation is demonstrated only as a result of being a patient, the establishment of rapport between the patient and therapist will undoubtedly bring about improvement.

The problems of the patient's motivation we encounter in developing, maintaining and sustaining the desire on the part of the patient to participate in the treatment program are those about which I wish to speak today.

We have been hearing from the other panel members of many of the complexities of a human being that contribute to motivation. It is a big job for the occupational therapist to observe reactions of his patients and know when and how to handle them. Too often all of us are too willing to use the excuse, "if only the physician or other therapists would learn the value of occupational therapy the patient would have a better attitude about his treatment before he comes to us." There is no one to blame today for that but ourselves. It is up to us, in working with the other team members, to discuss treatment procedures, results and observations of behavior in an intelligent manner so that it will be helpful to them as well as command respect for us and our profession. We have complained for so long about this particular problem that sometimes I wonder if it hasn't become habit and we fail to see that team rapport either has developed or is there practically for the asking.

Once the patient's motivation is developed the problem of maintaining and sustaining it demands a clear understanding by the occupational therapist of the patient's point of view. Let's look at a few patients we treat in occupational therapy. It is only possible in the time allotted to me to illustrate a few. There are:

1. The patient who, because he is a skilled machinist, looks over the occupational therapy shop on his first visit with disinterest because what he sees is "kid stuff."

2. The patient who, because he has never done anything constructive with his hands, is horrified at the manual activity he sees going on.

3. The patient who has a physical disability and can't understand why he should have to have occupational therapy because he has always thought it was for the mentally ill.

4. The patient who is hospitalized, and worried about her school age children and what is happening to them.

5. The out-patient housewife who has left regular chores and cannot see what good she could possibly get from doing some weaving or woodwork.

These are only some of the points of view that some of our patients have that must be changed in order to establish motivation in occupational therapy. How effective we are in changing these view points depends on our ability to interpret our treatment program to them and our ability to reach them through some activity that will have a meaning and purpose to them. The last of these, the choice of activity, is in my mind one of the biggest controversial problems of occupational therapy today. Are the activities we use the best possible from the treatment aspect? Are these activities best suited to out-patients in relation to their individual places in society?

And now to look at only a few of the problems

we may encounter throughout the treatment program. There is:

1. The patient who feels that the physical therapist, or psychologist, or even the medicine the physician is giving him is doing more for him than occupational therapy and says he's going to stop coming to the shop.

2. The patient who, despite the fact you may be able to adjust his fees, feels that occupational therapy isn't worth it.

3. The patient who is able to return to work and wants to stop treatment because he's working with tools on his job and making $3.25 an hour while he's doing it.

What goes on in the minds of these patients to cause these reactions? What problems as individuals do they have that may be responsible for these reactions? What too, perhaps, are we doing or not doing that may contribute to these reactions?

Assuming that a need for continued treatment still exists in all three of these examples, what strategies should be followed to re-establish good motivation? In the first case, where someone else or something else seems to be doing more for him, there seem to be several things to consider: (1) The occupational therapist might need only to explain the correlation between the two therapies or with the medication. (2) A staff meeting with other staff members treating the patient may help in team approach to the patient. (3) The disinterest may be simply a reflection on the type of activity selected for this patient. (4) A consultation with the patient's physician may be in order to inform him and solicit his help in interpretation.

With the second and third examples, again I ask: Is the patient disinterested in the activity, or does the patient have financial problems at home that perhaps are causing him to worry?

Are we using the social-service department to help in these cases? Do we use the resources available to us to help determine if problems of this kind exist? Are we keeping ourselves aware of the many problems that can develop with people because they are patients?

Certainly I do not mean to infer by interjecting these questions that we should look for trouble. Nor in speaking of problems of motivation do I mean to create an impression that we have too many of them. All of us can look with gratification upon many patients with whom results have been obtained without any problems of motivation.

During these two days we hope, however, to be able to discuss methods with which we can more successfully meet the problems when they do arise. Remember:

That life is activity.
That activity is the basis of occupational therapy.
That your patient did not choose to be a patient.
That he is a complex individual.
That he has many latent capabilities.

Ask yourself these questions when you are discussing these problems:

Do I do the best job possible in interpreting the purpose of occupational therapy to this patient?

Is the treatment program I have planned in occupational therapy for this patient geared to his needs as a patient as well as to him as a person?

Do I intelligently observe and report conditions and reactions of the patient to the proper persons?

Am I doing my part on the team working with this patient?

Do I make full use of the resources at my disposal?

In other words, evaluate yourself and your approach to these problems, always keeping in mind the patient's point of view.

After the general session, the institute membership was divided into discussion groups where the problems raised in the general session were discussed. Recordings were not made of these meetings and unfortunately transmissions of the summary groups were not satisfactory except for the records that follow.

Summary

GROUP DISCUSSIONS

MAURICE GROSSMAN, M.D.

In considering that there will be questions which will not be answered, I can only add that I have already become known in the group sessions for asking more questions rather than for giving answers to questions raised. I would like to mention that when all of you were through last night at 9:00 o'clock, we really began at 9:00 o'clock. It was 10:30 before the three groups could finish telling me all that had gone on in their sessions. In addition to this material, as some of you know, I sat in on a number of the group discussions. The emotional connotations of many subjects actually became the core of our discussions during the meeting. These emotional meanings were first experienced by the people involved and only then were projected into the various subjects. In other words, emotional reactions are always within the individual concerned, himself.

I think one thing that stood out in all the groups was the constant tendency to talk about "our goals," getting the patient to take part in "our crafts," "our modalities." As the discussion went on, the connotations of such approaches to the problem, of trying to evaluate the emotional situation of the patient, was that somehow we were actually considering it from *our* point of view. It was only as we became aware of this that we started thinking of the patient as an individual; and only when we ourselves actually began to respect the integrity of that individual, that we could begin to understand the patient's emotional reaction and get into the field of what influences his emotional reactions. I think this is one of the prime observations that came out of the discussion. We have to recognize by the very nature of our own human-being that our approach is bound to remain self-centered until we take awareness of this and consciously begin to think in terms of the patient as it might seem to him.

The question of motivation in terms of its emotional component, of course, came up all the time. Many patients very definitely want to be ill and to stay ill because of emotional value in the nature of the illness and the psychology gratification from being ill. I think it came out in one of the groups that some patients definitely do want to fail. They discussed various reasons for this but if you can observe that patients do want to fail in occupational therapy for many emotional value gratifications, it doesn't take much to realize that some patients do want to fail totally in terms of not getting well. It is well not to think in terms of how do I motivate a patient, or how do I give motivation to a patient, but to understand the positive forces within that patient that motivate him not only to get well, but the positive forces that motivate him to fail at getting well. He already has motivation, but ask what kind and in what direction and how can we use his motivations of all sorts and how can we strengthen those motivations that he has to get well and how can we help him give up and diminish the gratification from the motivation not to get well.

It led to a second question then. In our occupational therapy situation we are concerned with modalities, the instruments of our therapy. In the questions, are they adequate for the job we have at hand, are they outmoded, most agreed we should relate our modality to everyday living in all its spheres of activity. But again, it was brought out in the group that you cannot actually evaluate modalities in terms of treatment until you understand the emotional connotations of these modalities to the patient. I recognize that certain approaches are necessary for physical restoration, but nevertheless the adequacy of a modality from the standpoint of whether the patient will accept it and use it depends on his emotional reaction to the modality. In discussing the cultural aspects as related to the form of modalities and their emotional connotations, in at least one group it was brought out that there are definite emotional values in modalities that are culturally determined. I think it was surprising that in group after group, consciously or unconsciously, the first emotional value discussed had to do with the masculinity or femininity of the activity. Our activities do have these values, culturally determined first of all. They also have emotional values based on the experience of the patient. Cultural values do not necessarily mean American vs. European or Caucasian vs. Indian. We have different cultural systems within a small apparently homogeneous community. As a result of this we recognize that the occupational therapist may have a different cultural background from the patient, and thereby very sincerely may err in interpreting the emotional value of modalities in terms of what the patient will see in them.

The question of masculinity and femininity

came up constantly; dependence vs. independence; the role of the dependency of the patient who wishes to be independent; the occupational therapist who for her own needs, would like to keep the patient dependent; the question of love vs. hate. The question of anger, I will come to in a minute. They discussed all these dichotomies and the problem in treating them as either/or propositions, instead of recognizing admixtures. One therapist pointed out that psychologically we approach things bisexually. Where we do not see admixtures of these various values, we are not admitting them to ourselves or don't recognize them for one reason or other.

One of the things we came to was the problem of semantics. Time after time, someone would raise questions and use terms until we asked the question, what do you really mean when you say that? We start talking about guilt, but we haven't taken the time to ask what is guilt? where does it come from? what is its purpose? Until these avenues are explored, what to do about guilt becomes rather meaningless. More important than that, in use of words, the question of value judgment implied in the word becomes very important.

I would like to mention merely one area to illustrate this. The question that came up in group after group was should I express my anger towards the patient? I didn't get to all the groups but I question whether it missed any of the groups. Here are some of the words that were used. Should I *mask* my anger from the patient? Without recognizing it, the minute you say "mask" you already are suggesting the answer, because anyone who "masks" his feelings is insincere, untrue, etc., and only leads to one obvious answer, no, one should not mask one's feelings. But then I raised the question, should you *control* your anger? Well, that has a different meaning and it only leads to one answer also. The trouble is that it leads to the opposite answer, yes, you should control your feelings, and then we started considering just what is the difference between "masking" one's anger and "controlling" one's anger. The fact that we encourage patients to express their anger therapeutically raises the question should the occupational therapist be encouraged to express her anger. To control our anger means being in contact with reality, judging that reality, deciding what we will do with our anger. Testing reality and exercising judgment may indicate that it is quite all right to suppress your anger. Controlling your anger and not giving vent to it to a patient may not be insincerity, may not be falseness; it may simply express consideration of the patient which also, I think, is acceptable in most occupational therapy departments.

Of course, this brings up the question of verbal and nonverbal communications and that the patient will feel our anger anyhow. The question then comes up, is it all right to be angry? You will have an awfully hard time not being angry. It's about time we stopped just thinking of ourselves as machines that will react according to a certain situation, forgetting that we are human. We will react with anger, but the problem centers about the control of the anger. I think there is nothing more important in terms of reacting to patients. Not only psychiatric patients but all patients in general must know that you do have anger at certain situations, that you accept it, that it is normal. But he must know that you as a therapist can always control your anger. He is not afraid of your being angry as much as he is afraid of what you might do to him if you are angry with him. If he knows that you can control your anger in all situations, he need not fear your anger. This brings up the question, shall we permit patients to do as they like or shall we set limits? I think you will find in most situations that patients are much more secure if they know there are limits and that these limits are again realistic. Of course the latter is subject to wide interpretation. By and large, limits that are realistic to the situations, I think, are acceptable to the patient. But the question still is, who or what determines whether the limits are realistic.

As all these questions and discussions began to percolate and seep through, a startling discovery came about. We started out to study occupational therapy from the patients' point of view and we wound up studying ourselves and our concerns. In examining a problem we had to know *our* emotional role. We came to recognize the effects of how insecure we feel as therapists; this insecurity leading us to deny and not see that certain things are going on in our patients, or to look for all kinds of answers elsewhere than within ourselves.

The question of training came up. Obviously we need to know the dynamics of personality growth. We have to know the dynamics of emotions on the part of the patient that actually represent that he likes us too much; of the outward expressions of hostility; and dynamics explaining the fact that his cooperating and submitting as a "good patient" may indicate that he is really afraid of us; and that a "good" patient becoming assertive and overactive may be doing so because he is on the road to progress. This requires an understanding of the dynamics of patients. But more important, as all of you brought out, it is well to understand yourselves. The question was asked, does that mean that if we are to understand all of this we all ought to be psychoanalyzed? Well, obviously there are people who are adequate and doing a good job who never

saw a couch, let alone lay down on it. The question that comes to mind is, are you having problems with your patients that are in the emotional sphere due to things that you don't recognize? The answer is, yes, you do, all of you. All of us do, even after psychoanalysis. We are human. But the question is how much and to what degree. By and large I would like to remind you that many patients get well without benefit of insight therapy. I would like to remind you of the phenomenon that those who work in psychiatric hospitals often reacted with shame, disgust, fear and anger at what patients said and did, at their initial experience; how in six months, after they came to understand this they became accustomed to it, and didn't react to it at all; indicating that there is room within people for changes in reacting without necessarily uncovering everything in the unconscious.

That brings us to the next important question asked, how deep should we go into the patient's unconscious, particularly in psychiatric occupational therapy? In discussing this question I came up with the striking phenomenon that it actually is very difficult for you, all trained occupational therapists, to define what the limit is for the role of occupational therapy. Obviously you're not going to probe into the patient's unconscious nor should you. Yet I would like to remind you that every minute that you are with patients you are interpreting his deep emotional responses and are reacting on the basis of your interpretations through the medium of the secondary communications. To the extent that you understand his emotional responses and yourself, your responses will be appropriate.

THE OCCUPATIONAL THERAPIST STUDIES THE PATIENT'S MOTIVATION

G. MARGARET GLEAVE, O.T.R.

The four groups who studied the subject "The Occupational Therapist Studies the Patient's Motivation" approached this topic from many angles. In trying to define motivation you have said that it is (1) channelling of motives, (2) self impelled, (3) helping the patient to adjust to his position and keep productive.

The basic needs of a patient were discussed and they were found by you to be the same as for a well person with only the emphasis changed because he is a patient. Rapport was given an important part in these discussion groups. And the importance of team work was emphasized throughout.

A great deal of time was spent on what we can do to further understand the patient. Your discussion brought out these five major points:

1. Learn to put yourself in the place of the patient.

2. Know the background of the patient, using department and agency resources.

3. Recognize problems peculiar to the types of patients:

   a. short term
   b. static
   c. progressive
   d. fatal

4. Become aware of the outside factors that influence the patient:

   a. family
   b. culture
   c. education
   d. emotion

5. You also spoke of short and long term goals and the necessity of beginning at the patient's level and keeping the goals within his reach.

Finally, for your own benefit you changed the topic assigned to you to read "The Occupational Therapist Studies the Therapist's Motivation" and thought in terms of self-evaluation and self-improvement. In this last instance you have actually come up with topics for future institutes. You thought you needed to know more about human behavior. You felt the need for a workshop with actual case studies presented. You have shown the need for an institute on the specifics of record keeping and charting, a follow-up to the institute held in New Hampshire on writing and reading of professional literature. You have asked for more information on group dynamics. You have wanted to know more of the relationship of activities of daily living to occupational therapy. Last but not least, (yet harder to label) has been your desire to delve further into reality vs. idealism, or practice vs. theory.

In summary you have thought of the occupational therapist in terms of a member of the team, and the team approach as important. You have analyzed your individual position on this team and have shown strong signs of desiring to strengthen your own place. You have given much thought to the program that you are directing and the activities you use in order to do a better job. All of this you have done for the benefit of the many patients you will be treating.

Eleanor Clark Slagle Lecture

EQUIPMENT DESIGNED FOR OCCUPATIONAL THERAPY

FLORENCE M. STATTEL, M.A., O.T.R.

It is difficult to find words that would adequately express my feeling and appreciation for the honor which you have extended to me in electing me to present the first Eleanor Clark Slagle lecture. With deep humility and profound professional pride, I thank you for this privilege.

Occupational therapy had its conception in the faith and convictions of our early founders. It developed as a profession because of strong beliefs. Eleanor Clark Slagle, along with the men and women who shared her convictions, is responsible for our presence here today as the American Occupational Therapy Association. We have been given a wonderful professional heritage of courage and wisdom and as we continue to extend our hand to benefit mankind, may we continue to believe and search for further knowledge.

This knowledge, in our present age, can be secured by correlating and strengthening our beliefs with facts. Empirical methods should be tested when possible, and reasonable doubt should be eliminated. When we consider beliefs we find that they are formations of ideas. Most ideas are really very old. They are rediscovered and formulated and incorporated into one's philosophy and thinking. New ideas are rare, and in a lifetime few individuals are fortunate to accumulate them in even single numbers. In preparing this paper on equipment designed for occupational therapy, it is important to note that the ideas may be old. The newness lies in the formulation of the idea into equipment that has a purposeful use in occupational therapy. The keynote to good design of any type is simplicity that will afford real and effectual usefulness. The refinement of design, structure and engineering aspects of the equipment to be discussed were achieved by close cooperation and consultation with the Franklin Hospital Equipment Company and their staff of technical experts. Three pieces of equipment will be discussed in this paper:

1. Tilt table
2. Standing table
3. Bilateral tilt tables

The first two pieces of equipment you are no doubt familiar with. The tilt table and the standing table will be discussed briefly in relation to the design which has afforded broader usefulness in occupational therapy. The major portion of the lecture will be devoted to the thinking behind the design and use of the bi-lateral tilt tables, which are a new treatment concept.

The Eleanor Clark Slagle Lectureship was announced in 1954 and Miss Stattel, O.T.R., was first to receive the honor. The lecture was given at the opening session of the annual conference of the American Occupational Therapy Association held in San Francisco in October, 1955. Because this honorary appointment is establishing a precedent, the lecture is carried in this issue in its entirety rather than abstracted as have the rest of the articles for the Conference Issue.

TILT TABLE

In recent years we have been increasingly aware of the emphasis which the medical profession has placed on early weight bearing and ambulation. Man's physiological functions improve when he is in an upright position and his mental attitude is often reflected in improved behavior. The physiological and psychological importance of the vertical position is equally important to all patients ranging from the temporarily disabled to the permanently disabled.

The tilt table is familiar to you. It is a piece of equipment that permits the patient to be gradually elevated to the supported upright position with full weight bearing. Orthopedists have long reported the importance of weight bearing on the long bones of the body to prevent osteoporosis. Neurologists indicate the reinforcement of complex series of reflexes called postural reflexes which control muscle groups so that the upright position can be maintained. Hellebrandt and associates,[1] in 1949, reported on the effects on the cardio-vascular respiratory systems and the action of the heart in preventing gravity shock when subjects were gradually brought from a horizontal to a semi-vertical position. As we go through the list of medical specialists, to name a few:

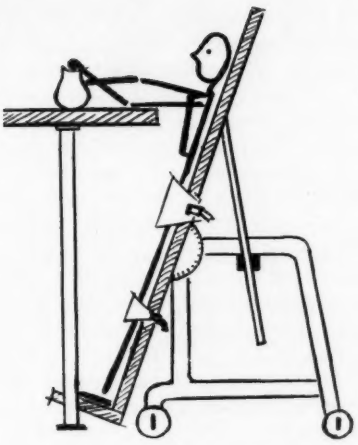

Figure 1. Tilt table—secures correct body positioning, frees upper extremities for treatment activities.

the urologist, plastic surgeon, cardiologist, internist, we find further agreement as to the physiological improvement associated with the upright position.

Prescribed degrees of angulation and time are indicated by the physician in the use of the tilt table. The physical therapist reports increased time and angulation tolerance in the severely involved cases. When the patient has been stabilized at a particular angle and can work in that position using his upper extremities, he can be wheeled on the tilt table into occupational therapy. In cases that are routine, without precautionary factors, the patient can be started on the tilt table for the time prescribed by the physician. The *availability of a tilt table with wheels which incorporates a secure lock device,* and the *attachment of suspension slings,* broadens the uses of this piece of equipment and makes it valuable in occupational therapy.

Many patients who normally would not be referred for early treatment in occupational therapy can be started on programs of early specific exercise and self care. The effect upon the patient when he is employed in an activity instead of being a spectator is instantaneous. To name a few diagnoses which can benefit by the use of the tilt table in occupational therapy: quadriplegics, rheumatoid arthritics, muscular dystrophics, multiple sclerotics and cardiacs.

The tilt table permits the exercise of the upper extremities and the skeletal muscle from the waist up. This increases muscular activity, forces the blood through vertical channels, increases heart rate and metabolic processes. For the severely disabled patient, permanent or progressive, it provides psychological as well as physiological benefits in being changed from the supine to the supported upright position. Occupational therapists have long related the use of the full body support in treatment of children in the vertical position. The idea is not new; however, the design and mobility of the tilt table with its added accessories makes it invaluable in broad usefulness in occupational therapy.

STANDING TABLE

The standing table is a natural piece of equipment which follows progressively the use of the tilt table in treatment. This particular standing table was designed to consider the following:

1. Adjustable frontboard which extends from the mid portion of the rib cage to approximately two-thirds of the

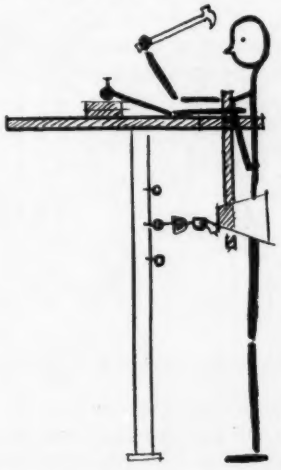

Figure 2. Standing table—frontboard, elbow supports and pelvic band aid in body positioning and stability when standing.

femur beyond the hip joint. This board acts as a support to the abdominal muscles and diaphragm when the pelvic support is adjusted. In the lower extremities it prevents and corrects flexion contractures due to muscle tightness or spasm;

2. Adjustable elbow supports are provided for quadriplegic, ataxic and other patients who need support for anterior, posterior and lateral balance. These elbow supports are not for body weight bearing but for shoulder and shoulder girdle support;

3. The table is firmly bolted to the floor or a planked platform and affords structural security for the patient. A height of 46" from the floor is suggested;

4. The pelvic support is a heavy canvas binder with a leather strap end which snaps, with a double and nautical sail buckle, to one of three eyelets on the metal upright of the table. This support tilts and stabilizes the pelvis against the front board. When the feet are spread to provide a broad base, this stabilization provides correct positioning and enables the patient to use his upper extremities freely.

The table has been used successfully with and without pelvic support. When the support is not used, anterior/posterior balance may be the prime objective. When there is a loss of one or more

extremities or where a neuromuscular dysfunction exists, balance must be considered in body compensations. Brunnstrom's[2] article on "The Center of Gravity Line in Relation to the Ankle Joint in Erect Standing" is recommended reading on the subject of posture. Occupational therapists should be aware of the body mechanics involved in maintaining the upright position, as the stability or instability influences the usefulness of the upper extremities in purposeful activities in self care and vocational objectives.

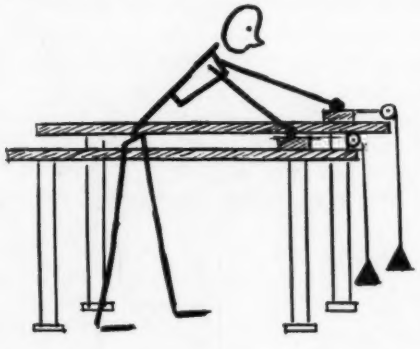

Figure 3. Bilateral tilt tables—alternate bilateral exercise, broad base.

BILATERAL TILT TABLES

This piece of equipment is new in design and incorporates the use in exercise of unilateral, bilateral, reciprocal and alternate motions and considers the total body concept in treatment.

For centuries man has postulated on the relationship of mind and body, and sought answers in the study of the physical and psychic development of man. An awareness of the natural process of physical and mental growth has resulted in consideration of treatment of the total man rather than in single entities. This is further reflected in the term neuromuscular, which denotes the close integration of neurology and kinesiology. The exercise treatment of the isolated muscle has been challenged repeatedly as a physiological impossibility. More and more attention is being devoted to movements and patterns of movements.

In a new born baby, movements and patterns of movements are exhibited entirely by reflex. Ford[3] states that a number of these motor reactions are present in the first few months when they are not inhibited by cerebral function. When volitional activity develops the reflex reactions are obscured. These reactions may be elicited thereafter only in pathological conditions. The neurologists know that at birth the anatomical development of the nervous system is not complete. In 1950, Gessell[4] reported on "Tonic-Neck Reflex and Symmetro-Tonic Behavior." In his comment he states "In spite of his bilateral construction, man does not face the world on a frontal plane of symmetry. He generally confronts it on an angle." He also felt that the tonic neck reflex behavior reflected three important principles of development; principle of developmental direction, principle of functional asymmetry and the principle of reciprocal interweaving. Ontogenous organization does not move along evenly. Periodic fluctuation of dominance takes place.

In the period 1947-1950 and 1951, Hellebrandt and her associates reported on cross education as related to contralateral, homolateral, ipsilateral effects of exercise.[5, 6, 7] Bilateral, unilateral, alternate and reciprocal exercises were studied to observe the functional capacity. The vast amount of work covered in these three papers cannot be condensed and they are references for further thought. For the purposes of this lecture, selected comments are brought in to illustrate the influence this work had on the design of the bi-lateral tilt tables. The therapeutic use of cross education was indicated and the validity of the single muscle test was questioned when considered as a criterion of functional capacity. In the study of bilateral, unilateral, alternate and reciprocal exercise, the effect of the exercise on the functional capacity of the weakened limb was noted. Contractile power and endurance was reportedly increased. The report of 1951 indicated the lack of justification of limiting treatment to the affected side. Hellebrandt referred to postural reflexes as reported by Magnus and Walshe. Reciprocal and alternate exercise and the influence of facilitating mechanisms were considered. In the subjects used for the study it was noted that some gave up because of psychological and not physiological reasons and the reverse was also true. The body will follow the dictates of the mind and the mind will follow the dictates of the body when it is fatigued but the subject controls both and close observation was made to detect differences. In 1952, Levine and Kabat[8] reported on the "Dynamics of Normal Voluntary Motion in Man." The concept that we must think of movement rather than isolated muscle activity was presented. Interdependence of distantly located muscles was stressed. Significant to the bi-lateral tilt tables was the report that inherent in all movements is the inclusion of the rotation of the trunk and pelvis. Levine and Kabat discussed the purpose of maximum achievement with importance of proprioception, patterns of movement and co-contractions in voluntary movement in man. Eberhard, Inman and Bresler, 1954,[9] in the study on locomotion, report that muscles do not act in the traditional anatomical sense, they fit into the whole pattern of motion. In walking there is rotation of the trunk and pelvis and independent of this, rotation of the femur and tibia.

The premise for the functional design and use of the bi-lateral tilt tables evolved from the above readings and clinical observation of patients in occupational therapy and are listed as follows:

1. Reflex patterns of movement that are present at birth and are lost when voluntary activity takes over can be elicited in pathological conditions;
2. Functional asymmetric development is found in man and reciprocal correspondence or interweaving of opposite sides takes place;
3. Contractile power and endurance of muscles could be increased by use of bilateral and unilateral alternate and reciprocal exercise, in prescribed rhythmic beat and maximum resistance;
4. Rotation of the trunk and pelvis are inherent in all movements;
5. In locomotion, muscles tend to fit into the whole pattern of motion rather than function in the traditional anatomical sense.

The tables were constructed to permit adequate space for standing or sitting. The tilt is provided by the telescoping mechanism on the forward portion of the tables which permits an angulation of 45°. A series of twenty-one adjustments permit the desired range of motion of the extremities from O° to over 90° starting from the horizontal position. Surface of the table is a plastic non-friction finish. Full width clamps slide together to wedge and hold project or work of the patient. Small end clamps with pulleys permit the occupational therapist to add resistance or assistance in particular movements. Attachments for a belt support are provided on the stable, upright posts. An audiovisual metronome can be used to establish the rate of speed at which the patient can work and to have a check on the amount of exercise accomplished.

The positions of the feet when standing are:

1. Standing, feet close together—small base;
2. Standing, feet spread—broad base;
3. Standing, one foot ahead of other in pace position.

Exercise patterns of the upper extremities:

1. Unilateral—pertaining to one side;
2. Bilateral—pertaining to both sides;
3. Alternate—complete pattern of movement on one side one or more times; complete pattern of movement on the opposite side, one or more times. Complete pattern of movement on both sides;
4. Reciprocal flow of exercise from one side to another in a continuous pattern of movement. Flow of continuous pattern of movement on one side.

Position of head:

1. Directed toward the involved extremity to reinforce extension pattern;
2. Directed away from the involved extremity to reinforce flexion pattern;
3. Head in mid position.

In occupational therapy many activities are bilateral and unilateral. In the use of these tables, woodworking, weaving and ceramics have been set up in the exercise patterns described above. Finger painting has also worked out successfully. The element of interest which is stimulated by the craft acts as a motivation for the patient to work and achieve and the sometimes inhibiting psychological factor is less apparent.

The audiovisual metronome was mentioned earlier. This instrument provides a sound beat and a simultaneous flash of light. To the patient who has extensive cerebral damage it is advisable to present as many stimuli as possible and this instrument can be used to present this stimulation. The eyes and ears are in this instance reached and the pattern of movement is established along with the stimulus. In all instances it can be used to establish the speed and endurance of a patient to a particular exercise; for example, the patient is set up at the bi-lateral tilt tables in a selected position, the metronome is set for 40 strokes a minute. If the exercise is unilateral, the 40

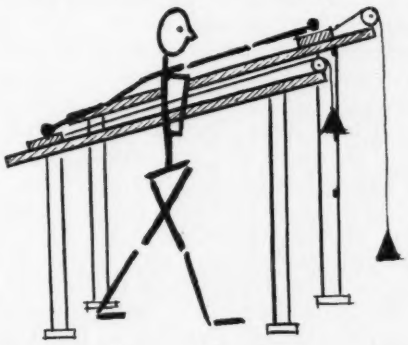

Figure 4. Bilateral tilt tables—reciprocal bilateral exercise, pace position.

strokes would indicate the amount of exercise; if the exercise was bilateral, it would indicate that 20 strokes for each extremity had been accomplished. By setting a timer the occupational therapist could be certain how much the patient had accomplished in exercise at the end of one, five or ten minutes or more. The metronome can often be used to set the exercise pace and through its use it is possible for the patient to maintain the established rhythm.

In preparing this paper, an attempt has been made to cover a vast amount of material which represents condensed thinking. The bi-lateral tilt tables and the premise on which they were designed are presented. The piece of equipment now needs testing in clinical application to remove reasonable doubt and provide facts in terms of its usefulness. It also needs further exploration as to its functional value in other than the physical disability field.

Some of the thoughts that were postulated when the bi-lateral tilt tables were completed, were as follows:

1. *Mentally Ill.* Would the physical approach in calling into action the primitive pattern of movement be beneficial to the mentally ill patient?

Would the audiovisual metronome assist in establishing early rhythmic patterns of movement in craft activities with varied tempo and duration?

2. *Cardiac, Tuberculosis.* Can improved work classifications result in timed, specific work output under supervision of the occupational therapist?

Could vital capacity be improved through prescribed, closely observed, selected activities which would be closely timed and amount of exercise recorded?

3. *Prevocational Exploration.* Should testing be done in patterns of movements?

Would it be possible to test motor fatigue and gauge sensory fatigue?

Would minimum effort and maximum achievement result in analyzing patterns of movements in job demands?

As each selected field of occupational therapy seeks to improve its clinical application, it is earnestly hoped that more questions will be the result. Study of the vast amount of material that is available in the medical field will result in research that will bring answers and improved treatment techniques in occupational therapy. Our educational backgrounds provide us with a basic philosophy along with knowledge and skill to carry it out. Some occupational therapists have selected the psychiatric field, others the tuberculosis field and so on down the list of specialties. Their efforts in selected fields have increased their knowledge and skill in that field. However, it must be remembered that any knowledge or information in any specialty field is related to helping the human being. Our basic philosophy in occupational therapy embraces in treatment the physical and emotional makeup of the total person. With this thought in mind we are all occupational therapists first, reduced from our specialties by the common denominator, the human being who needs our help.

Early in this paper the beliefs of the pioneers in our profession were mentioned. Our profession is a stimulating and deeply satisfying one, which has grown because of our individual and united beliefs. It is sincerely hoped that this lecture will stimulate broad thinking and that indications of individual and group studies of professional importance will develop; that the growth of a national research laboratory in occupational therapy will result as in individual instances and as an organization, we continue to extend our hand to benefit mankind as we search for knowledge.

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The editors of the American Journal of Occupational Therapy are proud to present this two-part issue. Part I is the regular bimonthly issue of the American Journal of Occupational Therapy; Part II contains a digest of the discussions and speeches from the institute and conference held in San Francisco, California, October 24-28, 1955.

Digest of Speeches From the American Occupational Therapy Association Conference

October 25-28, 1955

General Theme

Bridges to the Future

Session on Psychiatry

THE CHANGING CONCEPT OF THE OCCUPATIONAL THERAPIST IN PSYCHIATRY

DAVID G. SHAW*

As a rehabilitation administrator in a government agency which is attempting to develop a total medical rehabilitation program in a number of large hospitals, I have been asked to speak on the changing role of the occupational therapist in hospitals and clinics, including psychiatric hospitals, of the Veterans Administration. Some of you will remember "the Jack of all trades" era of occupational therapists when they were responsible for the total hospital rehabilitation program. These resourceful therapists would find it hard to recognize present day medical rehabilitation programs in psychiatric hospitals or any hospital or clinic for that matter. Today, occupational therapists have become an integral and important facet of expanded physical medicine and rehabilitation programs. The scope of occupational therapy is now that of a treatment discipline coordinated into a complete medical, social and vocational rehabilitation process. Within the operation of a physical medicine and rehabilitation service in a Veterans Administration hospital, occupational therapy, *itself,* is functioning as an important part of a consulting and treatment service.

To assist in administering and coordinating this operation in a large hospital, the psychiatrist or physiatrist is provided a medical rehabilitation coordinator, usually referred to as an executive assistant. This coordinator is especially trained to utilize all facilities of the hospital and community in planning, under the physician director, a complete rehabilitation program appropriate to the individual patient's needs. With my background as a rehabilitation coordinator, I recognize that some occupational therapists have viewed with alarm the development of new treatment sections which, on the surface, may appear to have infringed upon the recognized responsibilities of occupational therapy. However, my general observation leads me to believe that occupational therapists themselves have contributed much to these new therapy sections in providing medical and psychiatric background and in guiding them in the development of ethics and standards for these groups. As I visit hospitals and clinics, it is a common occurrence to observe occupational therapists participating in the training of these allied therapists. This is as it should be. Occupational therapists have the knowledge, but there are too few of you who are available and interested in providing this much needed guidance.

In the expansion to provide a more complete physical medicine and rehabilitation program, the occupational therapist has had to assume the role of leader and administrator. Large psychiatric hospitals and clinics have expanded programs necessitating the employment of greater numbers of occupational therapists, and aides, as well as the development of training programs for occupational therapy students and other medical hospital specialists. This expansion has called for administrators to plan, direct, supervise and coordinate all of the physical medicine and rehabilitation sections of which occupational therapy is frequently one of the largest. Therapists have gravitated into positions of administrators, supervisors, advisors, teachers and counselors. The therapist must become an active member of the hospital rehabilitation team, aiding the physician in diagnosis by factual observations and evaluations of patients' behavior, providing treatment itself, and entering into the planning for the patients' post-hospital life. Recent length-of-stay studies are pointing up the need for shortening the hospital stay and yet we need an assurance that the proper

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level of community readjustment is established. These problems and their solutions are a matter of common knowledge to good occupational therapists.

Aside from this professional teaching in the academic area, much rests upon the occupational therapist in the orientation and training of therapists in related fields. It is not sufficient that the occupational therapist be content with training students in allied fields, such as physical therapy, educational therapy, and manual arts therapy, and others in the PM&R service. Continued effort must be directed toward orienting and informing social workers, clinical psychologists, vocational counselors, nurses and others as to the role of occupational therapy in the total rehabilitation program, particularly its role in relation to the patient's own individual needs, both during hospitalization and in the post hospital phase.

We all recognize the importance of financial support of any program if it is to be effective. Your ability to solicit and gain the understanding of your hospital or clinic administrators will depend upon how much you help them to understand rehabilitation concepts, especially occupational therapy. This perhaps you would consider the responsibility of the rehabilitation coordinator, but in fact, it is the responsibility of every member of the rehabilitation service. Who is better qualified to represent occupational therapy than an occupational therapist?

As a supervisor visiting many hospitals, I have observed that some physicians are totally unfamiliar with what you as a group of therapists do. This points up the need for you to participate in the orientation of physicians as to the modalities of occupational therapy, the part it plays in treatment, research and the overall total medical rehabilitation program and the specific contribution it can make to the post-hospital program of the patient. Specialists, general practitioners, residents and other professional people need to be exposed to the function of occupational therapy. If these physicians are not exposed to your treatment concepts, your abilities, your contributions, then they cannot utilize your services.

Research is part of the total hospital rehabilitation program. Among the physical medicine and rehabilitation groups, occupational therapy is recognized as one of the older more firmly established groups, possessing technical and medical training in the disability areas. Occupational therapists, therefore, should naturally participate in research. Research, of course, directed under medical supervision, but not infrequently conceived in the minds of the therapists themselves, this research can be wide in range and in operation. Let us review some of the areas in which combined thinking of medical groups have led to the application of occupational therapy in its research: (1) the use of the new tranquilizing drugs in psychiatric hospitals and chemotherapy in tuberculosis hospitals; (2) specific application of the occupational therapy techniques in hospital industry; (3) exploratory vocational experiences in work situations within the hospital; (4) development of specialized courses in dietetics, nursing, beauty culture and housekeeping.

Finally, I desire to call upon you as a group to put aside your professional prerogatives and take the responsibility of initiating and developing many new and interesting areas which naturally fall into the field of the occupational therapist. I have previously mentioned the use of new drugs. Increased interest in chronic treatment programs and geriatrics by the general public has pointed out the need for more therapists in this field. Therapists will be needed more and more as leaders. Therapists are now expected to assume this responsibility which goes beyond that of caring for the acutely ill. Looking forward into the next ten years the occupational therapist has an important part to play. Allied professional groups have not hesitated to propagandize their virtues. These allied groups have much to offer, particularly since a shortage of occupational therapists is anticipated for many years. However, at this point, I wish to caution you that if your professional modesty continues, your own professional standing deserves to be challenged by other groups.

It logically follows then that occupational therapists must meet this challenge. Schools must provide graduate courses offering experience and techniques in departmental managment and administration in order that the therapist can accept the role of teacher, supervisor and counselor. There will always be therapists who will not be interested in administration. However, the profession itself should consider development of therapists who are capable of assuming leadership. After experience and work has made clear which therapists are best qualified as administrators, it will be found that Veterans' Administration hospitals, state and other federal hospitals are clamoring for leaders in all rehabilitation programs.

SUMMARY

Occupational therapists in the Veterans' Administration and other federal and state institutions have had to assume the role of administrative therapists in organizing medical rehabilitation programs, providing training for future therapists and therapists of allied disciplines, and have had to assume the responsibility of advisor, teacher, counselor and administrator. This responsibility extends beyond that of training physical medicine and rehabilitation therapists, to that of orienta-

tion of social workers, vocational counselors, psychologists and physicians. It is further paramount that these administrative therapists concentrate on informing hospital administrators (both physician and non-physician) as to the value of a complete medical rehabilitation program. Finally, professional modesty on the part of an occupational therapist can be damaging to the profession, resulting in inadequate recognition of occupational therapy.

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Technical assistance in preparation of this paper was provided by N. Meryl Van Vlack, O.T.R., Palo Alto, California, and is acknowledged with thanks.

ALBERT T. VORIS, M.D.*

I have been, for the past twelve years, the director of a psychiatric sanitarium in the Bay Area. For the past eleven years we have had an occupational therapy department, which was originally begun with one therapist, and now consists of two, and one to two students, for 60 patients. The majority of my experience has been derived from my contact with this department and with the effects of it in this psychiatric hospital. From the standpoint of acquaintance with occupational therapists in large groups I am at a distinct disadvantage. However, I hope that I may be able to make up somewhat for my lack of quantitative experience with perhaps some more, we might say microscopic, evaluations of occupational therapy as I have seen it during these eleven years.

One of the first things I noted and felt to be of great importance in occupational therapy is the psychotherapeutic role of the occupational therapist. By this concept I do not mean to imply any formal psychotherapeutic work on the part of the O.T.R., but the recognition of the fact that the therapist does have a personal and emotional therapeutic contact with patients, in which the interchange of feelings or words is beneficial to the patient.

It was interesting to me, when occupational therapy first began at our sanitarium, to note certain ways in which patients were different when they were in occupational therapy from what they were on the wards or in the psychiatrist's office. To many psychiatric patients a doctor initially has the role of authority. Particularly in a hospital, he has the role of the person who is going to heal them; he is endowed with certain mystical and magical powers. There are also certain negative feelings toward a psychiatrist, depending upon not only the personal experiences of the patient, but also the fact that a doctor is authority, and the patients may have negative feelings about authority in general. The same thing is frequently true on the nursing floor, at which times the nurse, as an extension of the doctor, will work under the same handicap of authoritarian relationship with patients that the doctor does.

I think that it is well recognized that the occupational therapist is in a peculiarly advantageous position to work with patients in that the patient frequently looks upon occupational therapy as a continuation either of play, or of games, or of activity that he may or may not do at his home. It is a creative time, a relaxed time. In such an atmosphere, the defensiveness of a patient is at times altered so that he or she may make a therapeutic contact with an occupational therapist in a different way and, I think, a very meaningful way, in contrast to that of the same patient with a doctor. The therapist then has the opportunity to become to the patient a reality-testing person upon whom the patient may project thought or feelings or reactions, and test out and derive from the therapist corrective evaluation of such projected attitudes. This I am sure, the patient does not do consciously, but the very setting of learning a craft, of working on a project, gives rise to those kinds of feelings which lead to inter-personal interchanges which are of value to the patient.

In our therapeutic program with the students, we continually stress recognition by the therapist of the reactivity of the therapist to the patient, as well as the relation of the patient to the therapist. During the first two or three weeks they feel very stiff and formal, diffident about expressing how they feel about patients. As a matter of fact, most of them have a rather "do good," "sweetness and light" attitude about patients, not recognizing that many patients stir up hostility and other unpleasant feelings within them. Certainly as the second month progresses they become, I think, much more comfortable with the patient when they are free to recognize, and at times express in the doctor-therapist conferences, their own feelings toward the patients.

The therapist should at least have a very good grounding in the particular types of contact with the patient that embody occupational, recreational, vocational, music and rehabilitation therapy. By this I mean that, if occupational therapists are trained well in their profession and have, in their internship, the right kind of psychotherapeutic

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contact with patients, they will in years to come, when they may be involved in large programs, have the medical-psychiatric orientation of modern psychiatry toward patients, and will be in a position to direct and organize the adjunctive therapies.

In any team concept there has to be some leader, some director. The psychiatrist is usually the final director, but in any large institution there have to be some secondary leaders, who may be psychologists, etc. They may be involved principally in direct psychotherapy with the patient, but the adjunctive therapies, when the patient is not on the ward, again have to have some sort of leader. The question arises as to who that leader should be: one trained in occupational therapy, recreational or music therapy, vocational guidance, or what? Some one of those disciplines will have to coordinate the total of the whole program because the doctor will not have time to do the whole thing himself.

There is no reason why the occupational therapist should not be concerned with the integration and functioning of this group. Because occupational therapists have, and will have, the opportunity for this type of executive functioning, the problem that has appeared to me, from the technical standpoint, is this: Have occupational therapists been trained, or are they going to be trained to work principally with individual patients, rather than with groups; and is this kind of training going to limit them in assuming some sort of supervisory function over the patient's entire nonward time, and in organizing and directing and utilizing the assets of the other therapies? Recreational and vocational therapists have had, I think, somewhat more experience with group work than occupational therapists have had. Yet occupational therapists have a peculiar opportunity for learning a certain amount of the dynamics of human behavior in small and single units. They will find that, if they will learn some group dynamics, they can do a better job in this type of group organization than those who have less contact, with less ability to see the individual problems and meaning to the patient.

A second point probably projects on my own feeling, namely that medicine in general gets too specialized. I am afraid that perhaps some of the adjunctive therapies are getting too specialized also. If the doctor dismembers the patient by integrals, adjunctive therapy dismembers the patient's time into vocational therapy, recreational therapy, occupational therapy, etc., which I think is no more valid a division than the arbitrary ones in medicine. In medicine we certainly have been striving during the past few years, at least in psychiatry, to integrate the total medical program into a unitary concept. I see no reason to feel that this same thing should not be true in the adjunctive therapies, and I would only submit to the occupational therapists again that being a "Jack-of-all-trades" may give a very good opportunity in the future to integrate into a total adjunctive program all of the other, at present, disunited therapies.

Now if we may return to my first point, that of the peculiarly advantageous position the occupational therapist is in, in relation to patients, I should like to point out that for many years it has been taken for granted that the nurses' notes on the ward are of great importance to the doctor. However, notations by therapists and by student therapists regarding individual patients, have not been utilized to their fullest extent. At the present time at our hospital, notes are made on the patients' behavior and attitudes by the therapists, including their own reactions to the patients. This is partly for the training of the students, but is also an excellent source of knowledge and information for the doctors. When it comes to certain types of syndromes, such as the confusion syndrome following electroshock, active behaviors on the part of chronic patients, etc., I find that the occupational therapy notes, when I want them for a particular purpose, supply information that no other notes by any of the nurses can possibly supply. Here again, it is because in occupational therapy the patient is in a situation in which he feels unobserved, relaxed, a situation that more resembles his normal type of life, and in that situation he performs and expresses and does things that he will not do while on the ward. As occupational therapists become more aware of their own feelings, and can react to and with patients, these notes will be of even greater importance and value to the supervising psychiatrists.

At this point I am going to bring up a word and attitude I have noticed among our students and therapists, that is, their concern about occupational therapy being a place where the patients go just to pass the time of day. I think this is called "diversional use" of occupational therapy. I have heard a certain amount about this at different times and I have known that occupational therapists feel that they are not being professional if they are simply diverting patients.

Medical psychotherapy has somewhat the same problem. In relationship to the general medical profession the psychotherapist has sometimes been unfavorably commented upon as being someone who merely is paid to let someone cry on his shoulder. I think there is a joke going around to the effect that the neurotic is a person who builds castles in the air, the psychotic lives in them, and the psychiatrist collects rent from both of them. This again implies that psychiatry is a rather ephemeral useless thing in a way, dealing with non-existent, non-realistic values. Psychiatrists have been sensitive about this point in the

same way that occupational therapists have become sensitive to the term "diversional activities."

In psychotherapy it is true, at least with a certain number of your patients, that you are a crutch, a sounding board, somebody to whom they can come for reassurance, for recognition, for, at times, much needed ego satisfaction. Because these are dependency maneuvers on the patient's part, and the psychiatrist is fulfilling these needs, it is, I think, a valid use of the psychotherapist's time. However, it is quite distinct from the usual medical attitude in which the doctor is doing something to the patient, making him well, being, in effect, a noble authoritarian person who has certain relations to omnipotence. In satisfying the dependent needs, the doctor is not doing something to the patient and he is not directing and controlling therapy. He is assuming the role of a giver, but the directions for the gifts, that is the therapeutic prescription, are being written by the patient. Thus the medical omnipotence somewhat suffers, and the doctor's evaluation of himself, and others' evaluation of him, may seem less important in terms of the more authoritarian medical attitudes.

The therapist, I think, occupies a somewhat similar position in regard to diversional activities. In these activities the therapist is perhaps not the controlling, the directing, the omnipotent figure who is prescribing for the patient out of her greater knowledge and training. In the diversional activity program the therapist fulfills a similar role to that of the psychiatrist with dependent patients. The patients tend to prescribe for themselves and to take from the therapist only that which they want and are willing to take, and which will fulfill their needs on their own terms. Consequently the therapist is less in control of the situation at these times, and it is possible that this creates anxiety in the therapist.

I have known personally many patients who, after going home and then coming back to visit, would remember with a great deal of satisfaction and pleasure their experiences in occupational therapy. Even though it may have been of a "diversional" nature, they recall the settings, the pleasantness, the atmosphere, the sociability of occupational therapy. They may tend to suppress the feelings they had during their general hospital stay, and remember the hospitalization in terms of occupational therapy. These recollections of the occupational therapy situation are ameliorating and modifying of the unpleasant recollections that they may have faced during their illness, and tend often to make them feel as though they had had an ordinary illness instead of the significant one it may have been.

This, I think, is of great value to patients because many of them, if they relapse, will have less fear of coming back to the hospital if they have this concept of occupational therapy to cling to. Whether or not I am making a mountain out of a molehill regarding the use of this word "diversional," these thoughts I felt impelled to bring to you, if you need any increased confidence in the diversion of patients.

There is one problem that faces both the occupational therapist and the psychiatrist and that is, if occupational therapists are to play the role of psychotherapists, they need more contact with the psychiatrist, which I think is fine. The psychiatrist, however, has to supervise and have contact with the patients, the family, the social workers, the psychologists, and doesn't have quite enough time to go all the way around. So, if you don't have as much personal contact as you wish, understand that the psychiatrists don't have enough time to fulfill all the roles that are asked of them. On this note of recognition of the limitations of psychiatrists, I will close.

DORIS TAGGART CUTTING, O.T.R.

I have been asked to represent the occupational therapists in the state hospitals of California; and as their representative, I wish to present briefly their viewpoints on the changing concept of the occupational therapist.

Speaking as an occupational therapist who has recently been in the psychiatric field, the need in our changing role as therapists is to be more thoroughly understanding of the concepts of dynamic psychiatry or psychodynamics. We must go from our orientation of working with the individual patient in the hospital to an orientation of working with patients in large groups. This means that we must be able to lead, to observe, to participate and to report on what goes on in groups with many patients. We also need to know more about group psychotherapy. Related to all of the foregoing, we need more understanding of basic human dynamics, of the interaction which goes on in groups, and of the development of our own awareness of our emotional needs in relation to patients and other persons.

During the last three days I have heard much in the institute groups and elsewhere regarding techniques or modalities. I feel a little concerned by the concentration of many therapists on techniques or modalities and on what to do with them. I think that particularly in the large psychiatric hospitals we have learned that we are

not, or should not be, concerned with the techniques per se. We are primarily interested in the need of the patient and whether or not this is being met by the techniques we utilize and by the emotional climate presented to the patient during activities. We do, however, see the necessity for grouping our activities into two main areas in order to meet patient needs. Both of these groups relate to the return of the patient to the community as well as the in-hospital treatment program. First of all we should provide for the patient activities of a functional or practical nature which will have value in areas of prevocational and vocational training and in industrial therapy and which will also have definite carry-over in returning patients to daily living in the home and in the community as functioning citizens. We also see the need of providing these patients with activities which will have carry-over when they leave the hospital which will help in other ways to maintain better mental health.

We realize more and more our need to participate in the area of administration and leadership. We examine ourselves as to why we are unwilling to accept, or must be pushed into accepting, the role of leader and administrator. I feel the solution to having capable and willing administrators is in better preparation of therapists for accepting this position. Many students and therapists have potentials for administration and leadership; it is part of the job of the school and the hospital to detect in our students and the therapists we supervise aptitudes in these areas and to help in their development in order to fulfill the need in occupational therapy for this type of therapist.

In the hospital proper we find that our role is changing. No longer are we expected to carry all activities but we have to be a specialist in some areas and a teacher and a trainer of many other personnel. Many of us feel we are poorly equipped to handle this. First of all, I think that we have difficulty in accepting this particular situation. In the acceptance itself, and in self-evaluation, we can begin to function adequately as teachers of other personnel, be they students, nurses, psychiatric technicians, etc., and at the same time be able to interpret more adequately what our place is in the hospital structure. With the evaluation comes the question of what patient groups in the large hospital will be most benefited by our special skills as occupational therapists. I know that many of you in this room have found that much of your time would best be spent effectively with the so-called "chronic" type patients and as an adjunct to specific treatment programs rather than with newly admitted patients with good prognosis.

The last thing I want to point out is that we are beginning to realize we have been verbalizing, too, for a long time and giving lip-service to the team concept. We must evaluate ourselves to discover how we can really become a good member of the team. This is in relation to other personnel of all types: the doctor, the nurse, the psychologist, the social worker, the psychiatric technician, the dietitian, etc. I think that in the state hospital with the coordinated activities program, this means particularly working closely with the specialists in recreation, music and industrial therapy—working together so that we do not segment the patient. I have heard several comments at the conference about this. Most of us who work in the coordinated type of program feel the basic thing is to understand and accept that these specialists have a contribution and there is much that they can teach us and that we can offer them in return. Then there is no problem of fighting among ourselves or segmenting patients and we present a united front to the rest of the hospital.

Also we must work with the groups interested in preventive psychiatry or the maintenance of good mental health. Some of us are threatened by this for we are not certain how we can function most effectively in this role.

The above, then, is merely a brief outline of some of the points that I, as a representative here of therapists in state hospitals, feel are pertinent to our changing role. During the institute and throughout the last few days, I have heard a lot of comments from therapists who came to the conference to get an answer, a solution, to their specific problem, and they want it, right or wrong, on black and white. And if they don't get the answers they're disappointed. Or else they come as you may be doing now, and say, "We hear the same old thing and it means nothing!" I want us all to think about this. My feeling in the last three days has been, "Why do we hear the same old things? Why do we ask these questions?" If we are in a changing role we don't change overnight. We have to admit our own limitations and our own capabilities and analyze ourselves to see where we can grow or where we should limit ourselves and say this is not our function. The other thing I've heard, both here on this panel and in other groups, is that occupational therapists are still too apologetic and too modest. This disturbs me. Because "for thirty years we've been in the basement" or we haven't had "enough money," we seem to keep on feeling this is our role and assuming it. I think that it is time we stood on our hind legs and said, "We have something to offer and we are proud of this." Let's do something about proving it, and not be apologetic, and not be ashamed, and not sit in the basement without enough money, but instead get out and interpret our program to others!

Session on Cerebral Palsy

COORDINATING OUR RESOURCES FOR THE CEREBRAL PALSIED

MARCIA HAYS, M.D.*

The first requirement in the coordination of resources is a deep and firm conviction that one resource, one discipline or even the department of public health which involves various disciplines, cannot do this job alone. The second requirement then follows and is equally important: a respect for the services of other resources and for the skills of other disciplines. Without these two concepts, any mechanical methods for coordination are doomed to failure.

It is my belief that these concepts have grown over the years since the cerebral palsy program was first organized in California, and it is this growth which has resulted in the present coordination in the program. From the very outset of the planning sessions in 1945, the staff of the departments of public health, education, and mental hygiene, being more than overwhelmed by the magnitude of the total needs, realized the necessity for coordination but lacked the welding force. This force was provided by the parents group who had faith in their children and who believed that these children had a right to both education and treatment. Through such thinking the outlined structure of a coordinated program emerged.

The abstracts carried in this conference issue are compiled from the speeches given at the annual conference and institute of the American Occupational Therapy Association held in San Francisco, California, October 24-28, 1955. Not all of the speeches from the conference were available, but the editorial staff of the American Journal of Occupational Therapy hopes the printed material will prove beneficial as references and teaching aids.

The elements of the program included: (1) educational opportunities, in a day school setting, for children living at home; (2) treatment services integrated into the school program; and (3) special diagnostic centers and in-patient facilities for selected children.

The methods used to secure such a program were:

a. Revision of the educational code to permit enrollment of children at three years of age in special classes.

b. Financial assistance from state funds for the additional costs of education.

c. State matching funds for construction of special classroom facilities together with therapy units.

d. Funds for diagnostic centers.

e. Funds for two residential schools.

f. Necessary additional state funds for crippled children's services to employ therapists, and for payment of medical supervision.

The official program, that is the program administered from tax funds, has developed along these lines until currently there are special day school units in fifty-two locations staffed by trained teachers and therapists (57 occupational therapists and 80 physical therapists), under appropriate medical direction; three special diagnostic centers and two residential schools, each with a capacity of approximately 35 children.

The official program, which might be considered the "basic" care, does not, of course, provide all of the needed services. Here, the voluntary agencies in their usual admirable way have filled out the supporting structure. The Elks have provided mobile units in the very rural areas where the population is small and the case load does not permit the organization of a special class. Pre-nursery groups for children under three years have developed through the United Cerebral Palsy Association; for while treatment is available in the school therapy units, the regular nursery schools are not available to handicapped children. The Crippled Children's Society has organized social and recreational activities, especially for the teenage and young adult groups, and their summer camp program is equally well known. And finally, the beginnings of workshops, both sheltered and for pre-vocational training, have bridged the gap between school and work.

And so, because we feel that the needs of the child with cerebral palsy are so many and varied, a coordinated program has come about. I should like to say that while this structure provides, we believe, an adequate framework for operation, there is much ahead to be done in the development of new methods and techniques in education, in medicine, and in that large area which currently lies between the two and is everybody's business—the area of personality development, including communication.

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In a typical community program such as that with which I am affiliated in Santa Rosa, the housing facilities for classrooms and treatment are made available by the local school board with the cooperation and financial participation of county school departments. The teachers, psychologists, speech therapists and other educational aspects of the program, are provided by the school departments. Medical supervision, the operation of clinics, and the provision of physical and occupational therapists, is through the county health department with supervision and help from the state. Our school and treatment center serves three counties, with a total population of about 200,000 and an estimated case load of some 300 school-age cerebral palsied children. Our present facility, a new one just completed, consists of two classrooms, a physical therapy room, occupational therapy room, a room for speech therapy, and an office and administration room, lavatory and playground facilities and a small kitchen which is used mostly for occupational therapy. These facilities are all housed in a one-story building which is at one corner of a moderate-sized elementary school ground. On the playground, and to a certain extent in the classroom, there is a definite mingling of the cerebral palsied children with those who are not handicapped.

Children of any age up to 21 with known or suspected cerebral palsy are referred to the clinics that are held two or four times a month in the physical therapy room at the school. Each new child is thoroughly examined, usually by an orthopedic surgeon who has had cerebral palsy training and experience. The diagnosis is established and a further program of evaluation, testing, treatment and suggested school placement is worked out.

Each child is given psychometric evaluation, hearing tests, and other medical consultation depending upon the indications in the individual case. When that work is concluded, school placement and treatment are then geared to the needs of the individual child. Those below school age are placed on an out-patient treatment program, coming in as often as necessary for physical and occupational therapy, and the parents are instructed very carefully as to the needs of the child and are assisted in working out the programs of home treatment.

The school-age child may be placed either in a regular school and receive therapy on an outpatient basis or may enter the special classroom for the physically handicapped. Children that are thus enrolled attend class about four or five hours a day, and receive daily physical, occupational and speech therapy. Close cooperation between the therapists and the teachers insures that in the individual child, the most necessary parts of his development are given greatest attention throughout the school day. The parents are also carefully oriented as to the child's problems and are helped to work closely with the therapists and teachers.

Re-examination of each child is carried out two to twelve times a year, depending upon the individual needs. Children who require more diversified or more intensive evaluation are referred to the central diagnostic clinic of the University of California Medical School. A few children requiring intensive care over a prolonged period may be referred to the state operated residence school for a period of from three to six months or more, after which they return to their local program for further care and education. Surgical treatment and bracing, when necessary, are carried out by the attending othopedist through the crippled children's services and post-operative therapy is given at the treatment center.

Those working in the program are guided in their activities by a manual of procedures which was drawn up through the cooperation of the local departments of health and education. An admissions committee controls the admissions and discharges to and from the special classrooms. Careful records are maintained on all aspects of the examination, treatment and the progress of the child, both medically and as far as his education is concerned. We use colored motion pictures extensively, in fact on every child. We feel that this is the only method by which we can really evaluate function and progress, balance and other phases of development. These pictures are repeated after every major change in the child's development process, or any change in the treatment program.

Such a local program as the one I have described receives assistance and cooperation from a large variety of community agencies. The Parents Club offers volunteer workers, recreation and parent education programs. A local sheltered workshop employs our older children as they reach the end of their academic work. This workshop also makes a large part of the equipment that we use in the school. The local chapter of the National Society for Crippled Children and Adults provides funds for the occupational therapy supplies, school equipment, matron services, luncheon program and many other things. A local United Cerebral Palsy affiliate, which has just been organized in our area supplies a variety

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of services and coordinates the efforts of a group of service clubs, indicating where their help can best be used. The Mental Hygiene Clinic provides psychiatric and psychological social service help to our children and their parents. The County Medical Society provides public education and orientation on the subject of cerebral palsy through the cooperation of our local newspapers and radio programs.

We have a number of problems and I will just mention them to you. Future funds for school expansion and the building of new facilities are being studied by the state legislature and some solution will come, I am sure. There is a definite shortage of therapists in our area and we've had great difficulty in getting needed therapists, both occupational and physical therapists. Transportation is particularly a problem for us because we cover an area of some several thousand miles, and getting these children in and back to their homes is difficult. Vocational training remains one of the great big problems. How can we fit these youngsters into a vocational training program that really best suits their needs? We need to work hard and study long on this particular problem. There is a growing awareness of this situation and I am hopeful that progress will be made by continuing cooperation of various groups interested in these problems.

I feel that these local programs, the 50 centers working in California, are doing a much needed job and form an important link in the chain of coordinating our resources for the cerebral palsied child.

PETER COHEN, M.D.*

The Cerebral Palsy Diagnostic Clinic with which I am associated was set up in 1946, following the establishment of the cerebral palsy program in the state of California, at the University of California Hospital, under an arrangement with the state department of education. These services are available without charge to all children who are diagnosed as having cerebral palsy or in whom there is a question of cerebral palsy. The diagnostic clinic accepts children for evaluation from birth to the age of 21 years. A medical report indicating that the child may have cerebral palsy is required. Children are referred by health departments, by clinics, by schools working with cerebral palsied children, and by private physicians. Because of the intensive investigation and procedures done, we see only a few children at any one time, so that there is a waiting list, even with the careful selection of children who seem to deserve the services we have to offer.

At the time the child is seen at the clinic, the parents are interviewed by a social worker, the child is examined by a psychologist, and a medical evaluation is done by a physician. In addition, there are orthopedic and neurological consultants in the clinic, as well as a physical therapist, occupational therapist and a speech therapist, to give whatever information they can in relation to the child's problem. In some cases electroencephalograms, audiometric evaluations and eye examinations are done if indicated.

Before the child leaves our clinic, the problem is reviewed and many parents feel that for the first time they have some clear understanding of the problem. Others still do not have a clear concept because of the complications and the serious prognosis that some of these children have. At any rate, an attempt is made to inform the parents in the presence of the social worker. The social worker, with the ability to talk to people and counsel them, is very helpful in this particular type of situation.

Following the initial examination, recommendations are made for follow-up. These are sometimes very general in relation to the type of program and treatment which the child may need, because the child may return to an area where competent orthopedists and physicians can make specific recommendations in each case.

A report of the examination is sent to the local health department in the county where the child lives, as well as to the agency or physician who may have referred the child to us, so that whatever information we may have accumulated will be available to them. The information which we gather would have little value for the patient if it did not reach those who would be working with him.

A few of the children examined at the clinic are selected for admission to the residence school. Sometimes they are referred to the clinic for that purpose and, if we confirm the recommendation on evaluation, arrangements for admission to the school are made and he then has available to him the services of a complete training program. In addition to the medical service, there is an intensive program of physical therapy, speech therapy, occupational therapy, an educational program and a recreational program. We have also had a start at a prevocational training program for the older child, in which the aid of the sheltered workshop in San Mateo County has been enlisted.

There is no charge for the child while he is at the residence school. This is part of the public

*Supervisor, cerebral palsy program and associate professor of pediatrics at the University of California School of Medicine, San Francisco.

school system, under the administration of the state department of education and is comparable to the schools for the blind or the deaf. The only expenditure for the family is that for clothing and incidentals. The crippled children's service of the state and local health departments cooperate in the cost of such services as bracing and surgical procedures which may come up while the child is in the residence school, but for other ancillary expenses not covered by the school or by the crippled children's services, local private agencies such as the United Cerebral Palsy Association and the Society for Crippled Children and Adults are called upon.

One Christmas, when the residence school was in Redwood City, an organization of United Air Line employees wanted to buy toys for the children. It was pointed out that the children got plenty of toys and that the money could be better utilized, so a fund was set up which is now available for transportation of families to visit their children in the school more often than they otherwise might be able to do.

While at the residence school, the child has available to him the services of medical specialists such as the orthopedist, the physiatrist, and neurologist and a psychologist, who study the child in order to review the original findings and determine whether the original evaluation was correct. A simple examination of a child by a psychologist is often not accurate in estimating his intellectual ability, especially in the physically handicapped child, so that serial examinations over a period of time are necessary to properly evaluate these children. Here, too, the social worker has an opportunity to carry out a certain amount of case work services with the child and its family, intensifying her efforts wherever this seems necessary.

Families are encouraged to come as often as they can and to bring other members so that the child does not feel he is being set aside but that he is still an integral part of the family. We feel this is extremely important, since each child eventually returns home to his community and must continue to be identified with his family.

Periodic staff conferences are held during the residence school period, so that the child who is divided into little pieces in occupational therapy, physical therapy and speech therapy, is finally brought back together again. All the members of the staff who have worked with the child are given an opportunity to discuss the child's progress or lack of progress and, in this way, to coordinate the activities of the program at the school. This is not limited to the staff at the school, but personnel from the community where the child is to return are also asked to attend the conference. This is particularly important in planning for discharge, so that whatever recommendations we make will have some meaning in relation to local available services. Sometimes discharge from the school is postponed on the basis of information we receive from a public health nurse, teacher, or someone in the community who is aware of the problems which will confront the child when he returns home.

Coordination, therefore, exists not only within the program itself, but with the community as well and, since this is one of the highlights of our meeting this morning, I feel it necessary to stress this point. Our efforts will have little meaning unless the child has some place to return, and unless the community is aware of the child's needs and tries in some way to meet them.

PATRICIA HOLSER, O.T.R.

Employment opportunities are of primary importance to the adult cerebral palsied. Public Law 16, which is administered by the bureau of vocational rehabilitation in the state of California, provides help in higher education or vocational training for all handicapped persons. Many of our mildly handicapped cerebral palsied are thus helped to find employment, but those who are moderately and severely handicapped have a hard time. It is even difficult to know what they can do, vocationally speaking.

Two agencies in California who are interested in employment opportunities for this group are the National Society for Crippled Children and Adults, and the United Cerebral Palsy Association. There are also a few agencies who are giving some aid, such as Goodwill Industries, and some rehabilitation centers whose main aim is therapy but which have started sheltered workshops in conjunction with the therapy such as the Mt. Diablo Therapy Center in Walnut Creek.

The Crippled Children's Society, I believe, has three workshops in operation: one in San Mateo County at Burlingame which is a sheltered workshop; one in San Jose which is sheltered; and one in Los Angeles, sheltered, but recently expanded to provide vocational training also.

United Cerebral Palsy has three workshops: one in San Francisco which is sheltered; another in Fresno which is both a sheltered and vocational training center; and a third in Los Angeles which is a vocational training center.

A vocational training center usually provides training in a specific area with employment in outside industry as its ultimate goal, whereas a sheltered workshop usually provides employment per se.

As we all know, employment of the cerebral

palsied is probably the most difficult of all the physically disabled particularly because of the associated handicaps such as speech and hearing disorders, difficulty with eye-hand coordination, spacial or shape discrimination, to mention a few. Furthermore, employers have reacted sympathetically toward employing other handicapped people, but because of associated problems mentioned previously and the very nature of cerebral palsy itself, it indeed becomes a problem to even ascertain what they can do.

In September of this year, I contacted five workshops in California which reported what jobs their cerebral palsied were performing, which can be divided into nine categories.

1. *Furniture refinishing.* All workshops reported the most severely involved can do some phase of this activity.
2. *Packaging.* Large and small objects were packaged for shipping on a sub-contract basis. Operations range from very simple to highly complicated jobs which require following exact printed specifications.
3. *Office work.* Included typing and filing.
4. *Power machine work.* Using drill presses, sanders, bandsaw, lathe, jointer, burrer, and riveter.
5. *Light assembly.* Work included soldering, screwing, bolting, gluing, or riveting parts together.
6. *Salvage work.* Included grinding, cutting, or peeling off unwanted parts.
7. *Sewing contract.* Included repairing, basting or folding.
8. *Sorting projects.* Sorted as to size, shape and color.
9. *Miscellaneous projects.* Included shoe repairing, switchboard, child care attendants, upholstery work, print shop, some handicraft (such as weaving or ceramics), spraying, decal work, small parts inspection, stock control, building specialized furniture, and letter dye stamping.

Therefore, from this list we know that a cerebral palsied person can produce.

Being most familiar with the United Cerebral Palsy workshop in Los Angeles, because I am associated with them, I shall outline their industrial production workshop program to show what they are doing specifically.

The vocational training workshop has been in operation a year and seven months, for the cerebral palsied. It has a vocational training director who secures all the job contracts, and a shop supervisor and instructor who are directly concerned with supervising the work of the trainees.

The average daily attendance is 36 trainees. Their average age is 26 years and the program is open to any 16 years or older. We have had 12 employed in outside industry after they were trained at the workshop, and these trainees have spent from six to nine months at the center before we obtained outside employment for them. The minimum wage scale is 25c an hour, and they work a 7-hour day.

Twenty companies have given the workshop job contracts, five of which are the major aircraft companies in the area. One aircraft company has provided 50 different assembly projects and this work is scheduled through the middle of next year.

ADA MARIE LAWSON, O.T.R.

As most of you probably realize for years the Benevolent and Protective Order of Elks has been trying to help those who are in need of assistance throughout the United States. In 1950 the California Elks Association, which is composed of all of the lodges throughout the state, realized that their membership of almost 100,000 could take on a major project to help some group of handicapped children within the state. Therefore, they composed a major project committee, which was formed of seven outstanding Elks in our state, to organize and operate the project. Realizing their limitations in medical knowledge they consulted people within the state of California who were leaders of their various agencies and knew what the problems were and what facilities were available. Those consulted included Dr. Marcia Hayes, Mrs. Esther Smith from the Crippled Children's Society, and Mr. Frank Doyle from the department of special education.

It was agreed that the cerebral palsied children in the rural areas were those who had the least educational and medical facilities available. However, it took a great deal of time to decide just how these children could be helped because the mileage was so great between their homes and the population was very sparse. Therapy mobile units were finally decided upon as being the most advantageous way to attack this problem.

Each unit is composed of a therapist with a fully equipped station-wagon so that she can go to the homes to work with the parent and child. Because she can go to a territory possibly only about twice a month, perhaps once a week, parent training is one of the major factors. While working in the homes the therapist can obtain a better understanding of daily problems that confront the child and family members. Many things that are covered up, frequently not on purpose, or are forgotten in a clinical situation, are noticed during these home calls. This might be a misunderstanding between siblings or, in some cases, a feeling of guilt in the parent is found. Many little things may be found in the home that the parents haven't realized could be adapted very easily without interfering with the

general family routine and would greatly increase the independence of the child. The progress of the child in the home therapy program correlates with the cooperation and interest of the parents, and the rapport between the parent and the child. In some cases where we find that the rapport is not what we would like, we have found that a sibling can cooperate with us and understand the program sufficiently.

The first division of cerebral palsy mobile units was put in the Eureka area to serve the northwest counties of the state. In 1951, when this division was started, the crippled children's service of the department of public health was holding a bi-monthly cerebral palsy clinic for diagnosis and medical attention. However, no therapy was available at that time and the only service they had been able to establish, other than bracing and periodic checks by the doctor, was sending the child down to the diagnostic clinic in San Francisco. This first division was started with an occupational and physical therapy mobile unit.

In 1952 it was realized that the cerebral palsy case load, plus a number of cleft palate children in the area that were seen in the crippled children's service plastic clinic but were not followed through with any speech therapy, warranted the development of a speech therapy mobile unit. Each year the major project committee has added a new division, or more units, as they were needed. The location of these new divisions was decided upon according to the number of cerebral palsied children in an area not receiving treatment. The division headquarters is usually in the city where the local health department is located, although practically all of the children that we work with are in the outlying areas. One of our divisions is in Fresno where there is a large school. The therapists do work with the local staff, but work chiefly with the children who are in the rural areas. At present there are five divisions composed of fourteen mobile units. The type of units in each division is determined by the case load and the needs of the children in the area.

Although the project was started just for cerebral palsied children, it has changed to include other physically handicapped if the therapist's case load will permit. These other handicapped children are the ones seen either in the plastic clinic for children with cleft palates or in the other orthopedic clinics and are referred to us in the same manner as those from the cerebral palsy clinic.

Presently, the total case load for all of the divisions is 321 children, of which approximately 50% are cerebral palsied children. The average case load of a therapist is 41. This would appear to be low except that most of the therapists average about 2,000 miles of travel per month and these are one-therapist departments with practically no voluntary assistance.

The equipment is similar to that in other departments except for the large pieces which are needed by an individual child. These are usually made by the family or by somebody locally for that particular child. Other pieces that might not be needed for a very long period of time are adapted so they are easily carried in the station-wagons. Small pieces of equipment are carried in cabinets built into the station-wagons while the larger pieces are carried in frames to prevent their moving about in transit. A great percentage of it is handled on a loan basis. Therefore, a child can be loaned a piece of equipment for as long as he can benefit from it—then it is taken back and loaned to another child needing it. In this program only one child can use a piece of equipment at a time so the inventory will show duplication on a great many of the pieces that are felt to be most important in treatment.

At the inception of the program the major project committee realized that the therapy mobile units were helping the problem of today; they were also concerned about tomorrow. So in their planning they granted a sum of money to be used for research on a cerebral palsy project at the University of California at Los Angeles. Also, they granted scholarships to students in occupational and physical therapy and for special education teachers in the hope of encouraging people to enter these fields where the demand is great and trained personnel is limited. A total of 366 of these scholarships have been granted during the five years that this program has been functioning.

Session on The Retarded Child

A PEDIATRICIAN LOOKS AT MENTAL RETARDATION

FRANZ BAUMANN, M.D.*

Mentally retarded children should be looked upon as normal children with a brain deficit. The evaluation of the deficit is a difficult problem and calls for team work by many disciplines. The pediatrician will attempt to interpret the findings and give the parents an understanding of the overall picture. He should then be in charge of all the plans for a therapeutic program. The cost of such a plan obviously is so great that it cannot be met by private means in many cases. A nursery school situation especially created for this purpose is of great value as a diagnostic and therapeutic adjunct. Such a pre-nursery program exists in Children's Hospital in San Francisco, sponsored by the local United Cerebral Palsy Association.

In the evaluation of children, it is attempted to classify them in a manner which will give the staff members a general idea as to the goals that are to be attained. This requires the making of an accurate medical diagnosis. It is attempted to determine what the child's ability or capacity may be. This might roughly be classified as: (1) possible restoration to normal; (2) limited, but self sufficient eventually; (3) partly dependent always; (4) probably totally dependent always. This classification must be reviewed at intervals; all rehabilitation efforts should be directed toward the goal. In the very young child, most of the therapy must be done in a play situation which already exists in the nursery school. The nursery school has the further advantage that it represents a group and affords an opportunity for socialization, and parent education can be carried out concurrently.

The retarded child represents a delicate emotional problem. Parents often find it hard to play or talk with him because he cannot respond in the usual and customary manner. His psyche requires just as much care as his soma. Emotional development follows a pattern similar to that of a normal child, but at a markedly reduced pace. Thus, a nursery school situation will allow for the individual play of a two year old and the beginning of group activity of the three year old.

In evaluating these children in the beginning or later, we must constantly keep in mind the inadequacy of our common yardsticks with which we are accustomed to measure development. In one child, for instance, the IQ varied from 70 to 105 in one year. In another group, a child classified as "obviously retarded" was called "obviously superior" twelve months later. This is no reflection upon the psychologist or psychometrist, but indicates how difficult it is to "measure" intelligence in these children. If the brain deficient child also has a physical handicap, one can readily see that standard testing methods have little value. Likewise air studies of the brain may indicate marked atrophy in early life and yet show normal development later on.

The vastness of the problem of the retarded child can be realized if one considers that about one per cent of the general population of this country or approximately 1,500,000 people may be considered mentally retarded. And this has been called a conservative estimate. Of all these, approximately ten per cent require special facilities. The state of California which now has its institutions overcrowded, provides 6700 beds for retarded persons and will require at least 6,000 more. Institutional care obviously is difficult to obtain; often it is unnecessary. Groups of parents are beginning to develop community programs in many regions. Such organizations, in addition to the providing of teaching facilities, may create an atmosphere of mutual understanding in which much of the individual mother's and father's confusion can be dealt with. Parents in such groups are less likely to have severe guilt feelings or the need to fix the blame; nor are they too likely to be exploited by quacks promising miracle cures.

What are the causes leading to the development of retardation in such large numbers? Except for a group of hereditary conditions such as hereditary idiocy and familial defects, we are generally dealing with two groups of children. One, the larger, is that in which something has gone wrong between conception and birth. The other and smaller group consists of children who were normal at birth, but to whom something happened at a later time. The first group may be referred to as the prenatal, the second as the post-natal group. I might add, parenthetically, that the term "birth injury" does not fit into either concept.

The pre-natal factors were reviewed in the

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AMA Journal of September 17, 1955. In this survey the obstetrical history of more than 1,100 retarded children in Baltimore was reviewed. In a rather ingenious manner, the authors were able to run statistically valid controls. The records of these mentally defective children showed significantly more complications of pregnancy and delivery, but also more prematurity and abnormal neo-natal conditions than a similar number of matched controls.

In two older references it is brought out that pre-natal care can do much to modify the incidence of prematurity. Nutrition during pregnancy and the socio-economic level of the mother are probably responsible for the fact that there is a markedly greater percentage of premature deliveries in charity hospitals than in private hospitals. Stewart H. Clifford of Harvard describes a group of 750 expectant mothers receiving an especially good diet; not one of them had a premature baby. A similar group without the special diet had 37 early deliveries. It is obvious that one should improve pre-natal care, especially nutrition, in order to prevent this one cause of prematurity. The infant born at term is not only less likely to have a brain deficit than a premature baby, but he is also a healthier child and better general risk.

The post-natal and non functional causes of mental retardation include convulsions, high fever, meningitis, encephalitis, toxins and poisons such as carbon monoxide and lead, head injuries and others. Many bacterial organisms can cause acute and chronic diseases of the central nervous system, and many viral agents can do the same. One must keep in mind that the encephalon is more complicated than the motor cells commonly involved in poliomyelitis. For almost all the bacterial agents adequate therapy is now available so that even tuberculous meningitis holds less terror than it did a few years ago. We will see less retardation due to sequellae of infections of the brain with microbial agents as time goes on. One can also hope that in the predictable future this may be true of nervous system infections caused by viruses.

Intra-uterine causes such as rubella during the first trimester of pregnancy, sensitivity to blood factors such as Rh, radiation and others, may have one common denominator with all the other causes of brain deficit: anoxia. In high fever, the oxygen-carrying ability of hemoglobin is reduced. Anoxia rather than febrile disease itself, might be the true reason for the degeneration or destruction of the brain tissue. Much research needs to be done in this area as well as in most other aspects in the field of the mentally retarded.

As of right now, we must do the best we can in treating these children according to our present concepts. So-called custodial care should be a matter of the past; active therapy or rehabilitation are our hope. We must have an open mind when new theories are advanced or new methods are presented.

The future of the problem of the brain deficient child still is an open book. I sincerely believe that, regardless of what the eventual treatment of any given case may be, you, the occupational therapist, will be an important part of it.

CURRENT THEORIES IN ETIOLOGY OF MENTAL RETARDATION

WILLIAM J. WEDELL, M.D.*

For many centuries, the general attitude toward mentally retarded children was to keep them alive as inconspicuously and as cheaply as possible. While that type of program partially fulfilled the needs of its day, it certainly added nothing to our knowledge for the prevention and better treatment of the retarded child. Within the past two decades, a revolutionary change has occurred in the attitudes toward the retarded child and, in general, towards all mental illness. A new philosophy has arisen, which is based more on capability than disability and is a much more positive approach to the problem. It is, after all, far more important to know what a child can do than merely what he cannot do. The new philosophy no longer accepts most retarded children as merely wards for custodial care, but is founded on the determination to do something for them.

Definition

It is not always easy to define mental retardation, particularly when dealing with the borderline group of disorders. Even the more severely retarded children often require a great deal of study and treatment before a diagnosis can be established. Some of the problems arise because learning, intelligence and behavior are such high-

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ly complicated acts and depend on so many variable factors like interest, attention, memory, fatigue, anxiety, etc.

It has been some 60 years since the work of Dr. Binet, who gave us one of the best guides for mental ability. His tests have been modified and revised, but are still universally used. During these same 60 years, there have been tremendous advances in our knowledge of the brain, its functions and its diseases. For many years, the "frontal lobes" were felt to be essential for learning and intelligence. Much recent experience with brain tumors, penetrating wounds of the head, brain abscesses, and prefrontal lobotomy has shown amazingly little and often no alteration of intelligence after extensive damage to that portion of the brain. This has then caused a more intensive investigation of the posterior half of the brain, where the primary sensory areas are located for vision, hearing and touch. At present, it seems that these three sensory areas and the surrounding brain tissue are the fundamental regions for perception, attention, memory and learning. If there is damage to only one side of the brain, the process of learning can proceed at a normal or near-normal pace. If there is extensive injury to both sides of the brain, then learning often proceeds at a very slow and incomplete pace. Even with bilateral brain damage, very careful and complete evaluation by a team of interested people is essential for an accurate diagnosis and prognosis. Very few medical or psychological problems require so much teamwork and the cooperation of so many difrent consultants from many fields of medical work.

You are all aware that the current literature in the field of mental retardation still shows a great deal of confusion in the description and classification of cases. It is important to keep in mind that this is a large subject and can honestly be viewed from many different angles and each time show quite a different picture. In every article and discussion of mental retardation, one must always keep in mind who is the author and from what viewpoint he is seeing the problem.

I should like to say a few words about mental retardation and its causes as seen from the neurological point of view. You must keep in mind that the neurologist is not the first to see many of the cases of mental retardation, and that the psychologists and psychiatrists treat successfully a large number of emotionally disturbed children who are temporarily functioning as retarded children. The neurologist sees most cases upon referral from family doctors or in pediatric clinics, epileptic clinics and cerebral palsy clinics, and in state and private facilities for the mentally retarded. From personal knowledge of several hundred retarded children, I would like to present briefly a classification of the common causes of mental retardation.

First, and most important, are the types of disorders which are called congenital malformation of the central nervous system. These are similar to other congenital disorders of the body, and in a way resemble congenital diseases of the heart, or of the extremities, such as club foot. It's the type of disorder that we know the least about, except we know that something went wrong during the growth and development of the fetus before the time it was born, and that certain lobes, convolutions and gray matter of the brain were arrested and incompletely developed in their structure. This is usually of the so-called cortex or gray matter of the brain, but at times involves other structures of the brain as well. This congenital type of malformation accounts for at least 50% of mental retardation, and there are other authorities in the field that will actually increase this figure to as high as 60% or 70% of the cases of mental retardation. It also includes mongolism, microcephalic and hydrocephalic conditions.

The next important cause of mental retardation is due to the so-called destructive diseases of the central nervous system, and these would account for about 30% of the cases of mental retardation. These destructive processes can be divided into two large groups; the first, due to trauma, or injury to the brain; the second, due to infections. Each of these groups would make up about 15% of the total population of mentally retarded children. Trauma is quite uncommon with normal labor and delivery. It is more common in premature babies. In a large number of cases, prematurity with babies weighing less than four pounds is one of the common factors which one encounters in their history. It is also important to remember that there are traumatic conditions like head injuries after the baby is born, in early infancy, or in early childhood. This is actually an increasing problem as we see more and more children nowadays who sustain severe head injuries and skull fractures primarily from automobile accidents.

As far as the infectious diseases are concerned, meningitis, encephalitis, abscesses, etc., this is a field which has been completely revolutionized in the last 15 years with the advent of the sulfa drugs, penicillin and the newer antibiotics. There is still room for improvement, and still room for further research to be done in these new miracle antibiotic drugs. We still need better drugs for the treatment of tuberculous meningitis, and we still need antibiotics for the virus infections.

The next group of retarded children which are likely to fall into a neurologists's hands are those

which filter through a psychiatrist and still are emotionally disturbed and functioning as retarded children. I don't know why the psychiatrists let these children get away from them, but they seem to think they are organically disturbed, or have organic brain disease. Anyway we see about 10% of such children in the clinics, children who are primarily there because of emotional problems, and who with adequate treatment have a good prognosis for complete recovery.

Finally, I would like to say a few words about the remaining 10% which we encounter, which we will call the miscellaneous disorders of the central nervous system. The commonest are those which are due to the incompatibility of the Rh blood factor, probably about 3% of the children we see. Then there is quite a variety of rather rare diseases, each them making up 1% or 2% of a retarded population. These would include such disorders as amaurotic idiocy, unknown types of degeneration of the brain and spinal cord, tumors and certain toxic agents such as lead and other poisons.

The correct diagnosis of mental retardation is often difficult to make, and requires many special tests in selected cases. However, one should always try to ascertain the cause of the illness, for obviously the best treatment program depends on all our knowledge of the cause, extent and course of the illness.

EDUCATIONAL CONSIDERATIONS

EVELYN L. BLACKMAN, M.P.H., Ed. D.*

In considering educational opportunities for the retarded child and how these relate to the role of the occupational therapist in the educational program, I would like, first, to make a few generalizations which may serve as a framework. In general, most educators would agree that the educational opportunities given any child are selected to enable him to develop into the kind of person that, potentially, he is capable of becoming. Any limitations which are imposed of necessity, begin with the "potential," that is, what is the potential of a bright child who is handicapped physically, or what is the potential of a mentally deficient child who is *not* physically handicapped in any way, or what is the potential of a mentally deficient child who is *also* physically handicapped. As our consideration here today is of the "potential" of the mentally deficient child, with or without additional physical handicaps, we are considerably limited in our scope, but not in our approach.

The White House Conference defined children of moron grade as "those children who (1) may learn to read and write to some extent under special instruction but who will profit little from ordinary academic instruction beyond the fourth or fifth grade; (2) who may learn to perform relatively simple, unskilled, occupational or industrial tasks with occasional oversight, and may be capable of earning a living under favorable conditions and under supervision, but who are incapable of progressing industrially beyond the common labor or (threshold) levels in simple trades or industrial pursuits; (3) who may acquire some advantageous social habits but who are incapable of successful adjustments to changing social or industrial conditions independently of outside help . . ."[1]

The occupational therapist, in general, is only incidentally concerned with the fate of the retarded child or young adult who is physically able to function under his own power. Development of the slow learning child is the responsibility of a teaching institution, and the occupational therapist, as a teaching member in such an institution, may become an increasingly active participant in programs which are designed to promote motor skills co-ordinate with prevocational or vocational training. We all know that slow physical development, even in the "normal" child is the source of great frustration and anxiety; consequently, physical education and recreation programs have been developed to help children to improve their physical agility or ease of movement. The severely retarded child who has not had the benefit of these programs is even more hampered because of his lack of coordination and his inability to achieve success in minor tasks that involve dexterity of movement.

The occupational therapist, in working with children who in addition to their mental retardation are also physically handicapped in some way, has an extremely difficult role to play. How well equipped is the therapist for this role? Is it possible to provide a curriculum for the therapist that will combine highly technical knowledge of physical medicine and psychiatry with skills in many crafts, and also prepare him for a difficult teaching role? The twentieth century approach to problems in medicine, public health and education has increasingly become interdisciplinary. In most universities and colleges an attempt is made to inculcate within one curriculum the theoretical bases of the allied disciplines;

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thus in public health, for example, we find optimum health described as physical, mental and social well-being. In education we find emphasis on the "whole child" concept; and in medicine and psychiatry, we find renewed emphasis on psychosomatic considerations in treatment and prevention. All of these approaches require a highly technical skill in a profession whose theoretical bases are broad enough to assume that the individual does not exist in isolation from his environment.

It would be ridiculous to insist that the occupational therapist, for example, be equally skilled in all of the professions which contribute theoretically to the curriculum of occupational therapy, but it is not ridiculous to insist that because the therapist's role is largely a teaching one, he obtain more than a superficial acquaintance with basic learning theory and the methodologies of teaching. The child or young adult who is participating in the teaching-learning process brings to it his own perception of the learning task and his own ability to perform. The teacher, on the other hand, brings to this process his own perception of the learning task and the child's ability to achieve. Entwined and intermingled in this process are all of the social-cultural values which either enhance or diminish the importance of the task at hand and allow the teaching-learning process to be tolerable or intolerable. For example, the mere fact that success in a task is highly valued in our society can so color the teaching situation with the retarded child that his limitations are not respected. On the other hand, to ignore the tremendous emotional support which success in some small way can give him would be to ignore a highly important motivational force.

The physician, the nurse, the therapist—those who are concerned with the disabilities of the child—are confronted more frequently with the abnormality of the situation and the need for accurate diagnosis, remediation, research. The teacher or counselor, because of the nature of teaching itself, is more concerned with the child himself—not the child *in spite of* his handicap or deficiency, but *because of it*. To the teacher, the child is not a moron, an imbecile, a cretin, or an idiot—he may be a child with the chronological age of ten, a mental age of five, and an emotional age of eight. He may be a child who is functioning up to what can be expected of him or he is not. He may be a happy child, or a sad little creature. He may be a child who gets along with his peers or he does not. How can the teaching situation be improved so that the needs of these children can be met.

Special education, in California at least, particularly with regard to teaching mentally retarded children, is still in its infancy. The good teacher of special education (and this may include the occupational therapist) needs to know enough about psychological testing and vocational testing to know how these interpretations bear upon his teaching. He should know, for example, that the results of present day intelligence tests with retarded children do not always afford the clues that more qualitative information does. How did the child approach the task: aggressively, with tears or with enjoyment. What were the developmental clues: the use of his hands, his body. What does the teacher (or the therapist) know about vocational opportunities for the retarded child or young adult. What does he know about the research in this area, especially in regard to retarded young adults.

The National Association for Retarded Children has recently asked all state and local groups to press for special education curricula in college and university teacher training departments. The fact that more of these young people are now attending school in special classes (where they must remain until they are eighteen years of age) has proved the need for a more concentrated inquiry into the special education curriculum itself. Although by no means widespread, special classes for the severely retarded have been started in some public schools and, privately, the sheltered workshop plan has been started for young adults. Social obligations alone have demanded that provision be made for these young people: the problems associated with increased longevity, such as dependency in later life; the hazards of an unprotected existence in large, municipal areas; the problems associated with delinquency.

In closing, I would like to remind you that the art of teaching is an old and honored one and one whose record, good and poor, is reflected in the actions and the history of our people. Our dedication as a people to the humanitarian principle that every human being has not only the right but the privilege to make his contribution imposes upon us, as teachers or as members of teaching teams, the obligation to ask ourselves, singly and as members of large groups, "Are we truly helping others to help themselves."

(1) "Selective Placement for the Handicapped," *Bulletin of the U.S. Department of Labor*, United States Employment Service (Rev. 1945): Washington, D. C., Ch. VIII, p. 84.

SOME CONTEMPORARY THINKING ON THERAPY AND TRAINING OF RETARDED CHILDREN

ROBERT L. BRIGDEN, Ph.D.*

Within the span of your lifetime, the mentally retarded child has been taken out of the closet formerly reserved for the family skeleton. No longer a source of family shame to be hidden from the world, the retarded child has been recognized as a human being, as eligible for intelligent social consideration as any other child.

Greater understanding of the etiology and nature of mental retardation, better public education on the subject, and the tremendously important Parents of Retarded Children movement have all been instrumental in promoting the new social concept of the retarded child. Last year the national Council on Family Relations at its annual meeting for the first time included a general section on "The Retarded Child." One of the leaders of this organization told me that, though they had for some time recognized this subject as an important one deserving attention in their deliberations, they had previously considered mental retardation as too touchy a subject to be safe to handle. They now felt, he said, that it was essential that they give consideration to this problem affecting over 700,000 families in the United States.

The speakers who have preceded me have discussed the etiology and characteristics of mental retardation. It will be my goal to bring you some contemporary ideas in the areas of training and therapy for retarded children. I believe that there are three primary goals. These are (1) self-respect through orientation to Diety and society; (2) self-confidence through the development of skills; (3) self-realization through self-expression. Each of these goals is interdependent on the others.

Now, what are the steps which we must take in order to achieve these goals. The first step would be to know the child—sociologically, physically, mentally, emotionally, and educationally. This requires individual study by qualified people. Second, we must determine, by joint thinking of these specialists, the retarded child's individual needs, insofar as training and therapy are concerned. This would include the type of physical environment which he requires, the social experiences which will benefit him, the types of training he needs, the media of expression which he is capable of employing. We must also consider the level of expectation which we should anticipate. In contemporary thinking it is maintained that we should strive for the optimum level of performance as opposed to the maximum level of performance. At the optimum level, the child is successful, feels comfortable, and enjoys what he is doing—and can therefore grow. At the maximum level, he is pushing against his own inadequacy, and the demands tend to make him discouraged, lose interest, and lose self-confidence.

We should also decide what limits should be set. These would be standards of social acceptability geared to his level of ability. We should determine what responsibilities he can assume. We must determine whether he should have a simple or a complex environment. Children with brain damage thrive on a simple environment, one which has a great deal of repetition and routine in it. Whereas an average child would be bored by this repetition and sameness, a retarded child gains security and comfort from them. In considering his needs, we must determine the amount and type of therapies which are indicated, the characteristics of the people who will work with him, and the role which he will ultimately play in society.

Having established the needs of the child in all of these areas, we are ready to develop his program. At Devereux, a residential ranch school for retarded children, the findings and recommendations of all the specialists are combined by a psychologist who plans the student's program, much as a physician might write a prescription for a patient. Through written reports and staff meetings, everyone who will work directly with the child is informed of the program as a whole and of his part in it. The psychologist is also responsible for keeping parents informed of the child's program and the part that they might play in it.

Because in planning a program for a retarded child we must consider not only his personal activities, but also the larger milieu in which he will be treated, it is important that parents and the world about the child be considered. To accomplish these things at Devereux School, group therapy sessions are held for parents. Brothers and sisters are also considered important, and conferences are planned for them. Very often siblings can understand a retarded child better than the parents can because of less emotional involvement, and can make a real contribution by helping the parents accept the child and the role which they might play.

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Periodic review is made by the professional staff of a retarded child's progress, and communication is maintained with the family, referring physician and the staff members who are doing the immediate work with the child. The program is readjusted to the student as his needs change.

Through this entire process, you can see that the retarded child is not being poured into the mold of some adults' conception of what children as a group should be expected to do. Rather, a cooperating team of specialists is evaluating the child as they find him, accepting him as he is, and endeavoring to provide a milieu in which growth may occur. This entire process I have been describing might be considered the framework of education and therapy and the means by which the goals of self-respect, self-confidence, and self-realization may be achieved.

I would like to say a few words about the expression which I have used several times: *education and therapy.* I am firmly convinced that those two nouns should be thought of as an inseparable pair. I can't conceive of a child going to a reading class, which we would generally accept as education, without finding either good or bad therapy in that class. Similarly, when a child goes to an occupational therapist for, say, ceramics, he should, in addition to gaining self-expression, have learning experiences. I was very happy to hear Dr. Blackman emphasize this point. Thus, education and therapy should be two facets of a retarded child's experience and, just as a teacher should be aware that her handling of a child in an academic class constitutes good or bad therapy, so should an occupational therapist realize that the therapeutic situation should also present teaching opportunities. Particularly with retarded children, whose motivation for learning is often relatively low, the occupational therapist can serve as a catalyst to produce learning not only in her own specific area, but also in the other phases of a child's total program. Remember that the real goal of both therapy and education is to help a child capitalize on his potential.

SUMMARY

First, modern thinking emphasizes the importance of individualizing evaluation and therapy-planning for retarded children. This is essential because of the great variations in needs and abilities from child to child. Second, we emphasize keeping in mind the world around the child and orienting program planning in terms of the future as well as the present. Third, we recognize the importance of integrating all aspects of therapy and training. Fourth, we emphasize building on capabilities rather than concentrating on disabilities.

Session on Orthopedics

BRACING FOR THE POST-POLIOMYELITIS PATIENT

EDWIN R. SCHOTTSTAEDT, M.D.*

This afternoon we want to bring to you some things about arm bracing that we are very interested in. We call it functional arm bracing as opposed to the other types of arm bracing which have been worked out in great detail by the Warm Springs group and by Dr. Bunnell. It is our feeling that functional arm bracing should be as efficient, eventually, as artificial arms are. If you can produce an artificial arm that does something worthwhile for the patient, that is functionally valuable to him, there's no reason why you shouldn't be able to turn out an arm brace that would do just as much for him. It has an added advantage to the patient, that of sensation—his own sensation rather than a wooden or metal hand, or hook.

Any arm brace, to be any good, has to be mobile. A patient must be able to move around freely in it; it must not restrict his motions; and it must have enough power and strength to accomplish something worthwhile for him or he won't use it. Also, it must do the things that he wants it to do, or he won't use it. One of the things that got arm bracing into disrepute earlier was that people expected that, just because you put a brace on a patient, it would replace the multitude of activities possible to the upper extremity. No arm brace, no artificial arm, can do that. They can help a great deal, can make tremendous functional advantages available to the patient, but they shouldn't be expected to completely replace lost function. In

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some cases the brace may be good for only one thing, one important thing to that particular patient. When it is ordered and made, the patient should understand in advance that this is not a complete replacement.

There are certain things that we feel are particularly important for one to know before ordering arm bracing, before working with arm bracing. Those things are the important motions that need to be replaced. Briefly these are (working from the terminal device to the shoulder) 1. Grasp. This would require a grasping device of one sort or another. This may be a normal hand; it may be anything from that to a hook. The apparatus that we have used is a Handy-Hand, a hard plastic shell in which the hand fits, that has an opposable thumb; a functional hand brace, a light metal brace with springs for joints, the entire thing being covered with plastic. We also use the Handy-Hook, a hook fitted to a metal hand piece set so that the tines of the hook lie between the thumb and index finger. This will replace some portion of grasp, that is the equivalent of lateral prehension or cylindrical grasp. At least it will replace something usable from the grasp point of view. Unless you can replace something in grasp you shouldn't start.

2. The next important motion, from our point of view, is pronation and supination. In order to bring the hand to the mouth, to bring it into writing position, to bring it any place where it can be truly usable, you need pronation and supination. This is gained, in our system of arm bracing, by a swivel joint friction sleeve operated manually or by normal remaining motion resisting an elastic motor.

3. Elbow flexion and extension are of tremendous functional importance and almost equal grasp in replacement need. This motion is gained by using a pin hinge joint with a manually-operated, variable-position, locking hinge on the arm brace or by elastic suspension of the forearm from the over shoulder hoop to an elbow cuff This last will eliminate the effects of gravity, allowing full utilization of weak elbow flexors and possible increased range if triceps is active to overcome the suspension.

A reciprocator attached to the shoe provides a means of changing cable length so that knee and hip flexion can be transmitted to elbow flexion using the elbow cuff suspended from a shoulder hoop by the reciprocator cable.

4. Equally important to pronation and supination are internal and external rotation of the shoulder. It was quite amazing to me to find out how many other things you cannot do if you cannot internally or externally rotate. If you have either internal or external rotators, you can use a rubber elastic motor to go into a patient's lost motion, so that he can bring his arm back into external or internal rotation from the position into which the elastic motor will lead him.

5. Another very important motion is humeral flexion. This does not have to be active. Backward flexion of the shoulder is also important for then the patient can move backwards against preset humeral flexion provided by attaching a humeral cuff to the shoulder hoop.

6. Two other motions which we missed, that I am sure you will recognize at once, are wrist flexion and extension—very worthwhile motions which should be used if you can use them. But, if you have a flail wrist, we feel that it should be blocked up by a single extension from the hand brace or Handy-Hook to the wrist to give a stable wrist joint in slight extension, the normal functioning position. If your patient has wrist flexors and no extensors, you give him rubber motors to give him wrist extension, or finger extension, and then he can pull against it. He can close his hand, and has something that will automatically open it.

7. Humeral abduction is a motion that we would like to have. I understand from Vernon Nickel at Rancho Los Amigos that he has the answer. I haven't seen the apparatus and so cannot go into detail. Humeral flexion alone is enough for anyone who is badly paralyzed. They really don't need the other to accomplish simple self-care activities.

As far as harnessing is concerned, we have used the opposite normal hand, if there was one, to work an arm brace, or sometimes to set a Handy-Hand, but basically that isn't what this is all about. We're particularly interested in using patient-supplied motor power, just as is used for an artificial arm. We'd like to use scapulothoracic motion, which as you know is either elevation, forward shrug, depression or retraction. You can use any one of these four scapulothoracic movements in some phase of controlling either an artificial arm or an arm brace. For Handy-Hands, particularly in quadriplegics, good possible power may be gotten with humeral flexion and for humeral abduction. Those make very excellent motors, if they are properly harnessed.

If there is no scapulo-thoracic motion I've found that for elbow flexion and slight humeral flexion in the patient who has flail upper extremities, we can use a reciprocator which allows the patient to select a desired length of cable which is attached to his shoe, has a reaction point on the pelvic band and over the hoop, and is attached to the elbow cuff. By bending his knee and hip he can bring his arm up to a predetermined level. He can rapidly learn by merely operating the apparatus a few times. For fine adjustment

it may take him a while, but not for gross motion.

Plantar flexion of the foot is well harnessed to open a hook. If you have nothing in your arms and you want to open a hook, you put a short length brace with a reaction point on the calf band leading down to a cable attachment on the shoe near the sole, so that by plantar flexion you can get sufficient hook opening. You can also open a hook by neck flexion and rotation —the patient pressing with his chin on a lever.

These are the major motors that we have employed. There are others if there is real need. You can sometimes have a reaction point on the wheel chair and get abduction, or some other motion, to open a hook or do something else with it. It is my opinion, however, that wherever possible, apparatus should be fitted to the patient and should be based upon the patient rather than upon a wheel chair. I think the patient will get a great deal more out of it if it moves freely with him.

The basic principles that should be applied in arm bracing, I think, are these:

1. First of all there should be a very careful analysis by the doctor, physical therapist, occupational therapist and the prosthetist, and you must remember that the patient is a part of this team. No arm brace will ever work for anybody who doesn't want it. The analysis should give us a clear idea of what motion the patient has—not so much which muscles are working as what motion is possible.
2. To make the apparatus work well there must be good harnessable power. There must be strength in the motor to make any of these things work. Your degree of success will be in relation to the patient's ability to work the equipment.
3. We also think it is well to keep our braces as light as possible, to make them comfortable for the patient.
4. We want our patients to be able to put the braces on and take them off. Not all our patients can do both, but most of them can take them off.
5. Braces should work from a stable base.
6. They should be simple.
7. There should be someone available—a functional arm braceman, an arm prosthetist, who understands upper extremity function and who is interested enough to spend the time. Sometimes moving a reaction point or an elastic motor point a half inch will make the difference between that patient using or not using the brace.
8. Proper training, I am sure you will agree, is of great importance. There is little use in giving anyone an artificial arm or a functional arm brace unless you train him properly in its use.

This brings up another point. If a patient continues to use an arm brace, and he needs it for certain things in his daily life, then that is a successful arm brace for that particular patient. If an arm brace is used and builds up a certain set of muscles so that the patient no longer needs to use the brace to accomplish something more than he could do before he got it, that also is a good arm brace, because he got increased function.

One thing that I've never been accused of yet, but I'm sure I will be sooner or later, is helping to produce contracture of muscles. By this technique you are supporting a muscle in a paralyzed range, and that is the reason you don't get contractures. The easiest one to think of is the biceps. I am sure most of you have seen contracted biceps in one type of arm paralysis or another, so that the patient could not extend the arm beyond 90°. Such patients also don't have good triceps. Now if the patient has a triceps and you give him an elastic biceps then he is able to work through his biceps range and there is no occasion to develop contracture. If he uses it he works through a wide range.

One of the other advantages to the patient in our bracing is that there is no need for the therapist to be setting him up in slings to do his arm activities. His slings and apparatus are always with him. If he does not want to use it he doesn't have to. If he does want to use it, it is there and he can use it without any difficulty.

EVELYN ALEXANDER, O.T.R.

The occupational therapist's part in the arm bracing program is, first of all, the very critical observation of the patient's activities, even before he is chosen as a candidate for arm bracing. There are several important factors that the therapist must consider. Among these is how the patient uses his hands, his arms, his elbow, his shoulders; the amount of trunk mobility that he has.

Another factor for consideration is the patient's acceptance of his disability, and his tolerance or readiness for this type of bracing. The patient's intellectual capacity also enters here. He will need the intelligence to understand the operation of such a brace and its function. Also the therapist must consider the patient's inner drive toward independence in one activity or another, whether in the area of self care or in his work or in recreation. It is also important to consider

how the patient feels about the appearance of such an apparatus. Some are very conscious of their personal appearance. The fact that most of these devices can be worn under the clothes does recommend them to most patients.

A second part which the occupational therapist plays is in assisting the doctor and the brace man, through her observation of the patient, to determine what type of bracing would best benefit the candidate.

After the patient receives his bracing the occupational therapist's major role is in training and helping him learn to use it. The therapist should understand as completely as possible the mechanical construction and the function of the bracing so that she can be of real assistance. It is her responsibility, also to set up activities for the patient that will be suitable in his training and give him the necessary learning processes that he must go through in order to really use his bracing. A record should be kept of how the patient learns, and the time it takes him to learn to operate his bracing. It is very important that he be given constant encouragement by the therapist. We found in our experience that sometimes we were ready to give up at the same time as the patient when something didn't work out as easily as we felt it should. It became apparent that we were giving up too early. The therapist must be encouraged and keep the patient working.

The occupational therapist too, should remind the patient, from time to time, of the purpose for which his bracing was designed. He should make it quite clear that it is not a "miracle device" that will do everything for him. For whatever period of time he wears his bracing to do functional activities he is also constantly exercising active muscles. He should also be reminded that *he* is the *motor* that makes the bracing work.

Session on Neurology

NEUROPHYSIOLOGICAL MECHANISMS UTILIZED IN THE TREATMENT OF NEUROMUSCULAR DYSFUNCTION

MARGARET S. ROOD. O.T.R., R.P.T.

I regret the title of this paper, because it is my intent to try to show how to activate or inhibit muscles, or parts of muscles, through the proper stimulation of specific sensory receptors. I have attempted to keep it simple. The sources from which the basic material is derived are the accepted texts of anatomy, physiology, neurology and neurophysiology. I do not believe that we yet understand, or have been utilizing completely, those principles which we teach routinely in our basic science courses. If we would have the kind of "bridges to the future" that we should have, all of us need to contribute observations and constructive thinking, rather than depending solely on the acceptance of the ideas of others. The basic material which I am offering today is a compilation of work done by others, to which I have applied special original techniques.

Part I. Types of disabilities responding to the techniques and the apparent advantage. Disabilities which have responded in some measure include normal posture cases, acute and chronic poliomyelitis, dermatomyositis, paraplegia, torticollis, club feet, and most satisfying, stroke cases, cerebral palsy and rheumatoid arthritis. The very young, who have had no previous treatment, respond the most easily. Normal patterns can be set, with normal development following without additional work.

I should like to give you a few examples. A seven months old baby, with a torticollis, was seen three times only at one-week intervals. At first visit, the mother was instructed in stroking of the sternocleidomastoid. This baby had been trying to crawl and stand, but obviously, because of his head position, had been unable to do so and was frustrated. By the end of the first week the child was crawling, and pulling himself up to stand at objects. At the end of the first week, the mother was given instructions for stroking the upper trapezius and squeezing that muscle as it does harder work. At the end of the third week, the child was discharged by the doctor. The father, however, made the most interesting remark when he said, "He doesn't have a little pointed head any more."

Pain patterns causing maintained position respond. With acute polio, we have unfortunately had only a limited experience but hope to gain more. Preliminary work with these cases has indicated that activation of the anterior neck muscles and inhibiting of the antagonistic extensors of the neck caused patients to nod involuntarily in response to questions, although they had a rigid neck originally.

A six-year-old, rheumatoid arthritic boy with severe contractions, who cried with pain when

anyone approached him, on stroking would immediately respond to poking and foolishment by protecting himself and moving his arms freely. The pain apparently subsided fairly quickly and the sweating also diminished markedly on hands and feet. This child was tried alternately on a hot-cold treatment, and primarily the stroking techniques were of three periods. At the end of that time, we felt conclusively that the stroking was the preferred treatment.

For cerebral palsy and stroke cases, hand movement and speech are easier to get than some of the postural patterns. This is the converse of what we have been expecting, or what we do expect. In joint measurement, it is possible to get greater range actively than passively, since there is interference with some of the sensory receptors as, for example, when pressure is applied to the forefoot for dorsiflexion.

There are some simple posture cases. In the hamstring stretch, we ask the patient to do a deep knee squat and squeeze the quadriceps, thus totally inhibiting the hamstrings while activating the quadriceps. Those of you who have tight hamstrings should try it. If you have a spasm in your calf group, instead of your normal reaction of squeezing and rubbing, try brushing the dorsum of the forefoot. This is based on the principle of action through reciprocal innervation.

Of the advantages, the children love it. Of the techniques, they are not painful. A patient can do much for himself. A CVA can relieve his tight shoulder by squeezing the deltoid or by stroking. The parent can be taught, week by week, the simple routine which can be carried out at home. There can be less splinting or none at all. There is possible active work for youngsters too young to cooperate, and techniques and treatment can be continued longer without fatigue to them. Speech training or re-training is facilitated for stroke and cerebral palsy cases. And one of the important things is that the equipment is cheap and easy to carry. I have a holster of brushes, a few pads which can be strapped on and a harness or two, but the equipment itself is minimal and easily made by an occupational therapist or may be purchased at the dime store.

Part II. Autonomic and voluntary nervous systems. For a clearer understanding of why there is a differentiation of stimuli for applied techniques, let us review the reactions to stimuli, and then add the techniques. There are two major divisions, *autonomic* and the other *voluntary,* each with two subdivisions. Under the autonomic system, the first subdivision will be *maintenance of the individual and race.* The second is *protection of the individual or race.* The two sub-headings for the *voluntary* will be *heavy work or postural work, and light work or fine coordination.*

For maintenance of the individual and race, I should like to give you a few key words to understand. The first one is "sleep." In sleep, we more nearly approach the state of this first column. These are the reactions of the body during sleep:

1. Relaxation of voluntary musculature.
2. Diminution of awareness of sensory impulses.
3. Stimulation of visceral activity with the consequent diversion of blood supply to the digestive processes, peristalsis, metabolism, repair of tissue.
4. The warmth of body temperature.

Considering these points, how can we induce relaxation or sleep through certain techniques of which you are aware? I mention temperature. The tub bath for the disturbed mental patient relaxes the voluntary musculature, relaxes the patient. Rhythmical, light, repetitious sounds or cutaneous stimuli also do this. Therefore the technique which I have selected will be slow, light, rhythmical stroking down the cutaneous distribution of the posterior primary rami, continuous, slow and light stroking for three to five minutes only, more than this will stimulate rather than relax. The effect on the patient is that a seizure has been terminated in the middle. Other patients have had fewer seizures. Very nervous youngsters have slept solidly through entire thunderstorms of which they were extremely fearful. Athetoids may be quieted and voluntary patterns then assumed. This is definitely lack of action of the voluntary musculature. There are, however, several muscles of sucking and swallowing which are activated. Chewing is learned later and therefore would come under heavy work, but sucking and swallowing are part of the autonomic system and may be activated by cutaneous stimulation of mucous membranes of palate, tongue and uvula.

The second division for protection of the individual and race, will be the "sympathetic." Our stimuli here offer a potential danger to the individual. And with it, we have emotion. Instead of the peaceful, quiet, happy lack of emotion that exists in the first division, we have extremes which might include joy, fear, anger. If we cry for joy we have "butterflies in our stomach." There is inhibition of the peristalsis. We use temperature extremes. Cold, since it has the greater range, is the more effective. Glandular output of the thyroid and adrenals, which assist with the flight or fight reaction, is stimulated. Glands concerned with the digestive processes were in the first group.

As far as the muscular pattern is concerned, under this division, the "withdrawal reflex" is the basis of voluntary muscle action. It is stimulated, as you know, by cutaneous stimuli. So what techniques of choice do we use in this group? The withdrawal reflex may be secured more pleasantly for the patient without doing the toe-curling Von

Bechtural reflex. Stroking the isolated area of the deep peroneals will bring in dorsiflexion on the medial side, and stroking of the saphenous branch of the femoral nerve, which activates the sartorius, will bring in flexion, abduction, and outward rotation at the hip in flexion. However it is also possible to get the "withdrawal pattern" through the crossed-extensor reflex. In this case, the patient lies prone and pressure is applied with the thumbs in the soft infold of the foot. This is not a bone pressure, this is a pain. After you have worked for a little while, the response will be more rapid. The foot which is touched will withdraw. The opposite foot, opposite leg, will extend and slightly abduct. This is the basis for the stepping gait. It was provided by nature so that if you stepped on something which injured the foot, you would stand on the other, but it is the basis of the reciprocal pattern. This is the only one which children do not care much for, but they don't object to it. It is uncomfortable, but not painful.

You, as occupational therapists, can go further and put little pads on tricycle bars. As the child presses down, his next reaction is withdrawal, and the other leg extends. Or in standing and walking activities, you may work out other similar situations.

Also in this division we study extremes of temperature. I think an ice cube may be considered an extreme of temperature. Ice administered to the upper right quadrant of the abdomen will activate the diaphragm reflexly and will increase rate and depth of breathing. The ice should be applied briefly, and the melted water blotted, not stroked. Within a count of ten, you should begin to see increase in breathing. Repeat two or three times. This has had a very definite effect upon vitality and voice production in cerebral palsied children and in dsytrophies. Patients restricted to a sitting position are particularly in need of this technique. Many youngsters can not go to school unless they have their ice before they are sent to school and at noon when they come home. Then they can manage a full day with vitality.

With these two techniques as examples, we leave the autonomic in order to discuss the *voluntary* nervous system. In discussing heavy work and light work, I think the easiest concept for you is to think of the white and the dark meat of the chicken. The legs, which the chicken uses for propulsion, are composed of dark meat, while the pectorals for the wings which they do not use, are made up of white meat. The heavy work muscles will respond to the specific sensory receptors of pressure for muscle, joint and bone—stretch and heavy work. Pressure receptors, stretch receptors, are stimulated as long as the stimulus is applied, and are limited to that side and to that segment. Bone pressure is slower in reaction, but once stroking has facilitated the nervous system, bone pressure will cause quick reaction. It is impossible to get extension of the elbow by pressing on the epicondyle in the beginning. But if you have done your stroking for the radial nerve and for the triceps, and then try the pressure, the patient's flexed arm will immediately extend. The bone pressure technique is slower and needs facilitation to get reaction. Muscle pressure and stretch react immediately. Pressure is administered by the hands actually to the muscles or by pressure pads which may be strapped on. Our most successful ones are little pads we strap on each medius underneath the youngsters' slacks. Bone pressure is done either with the fist or a sponge rubber ball on the end of a brush. I like to use my fist but am careful to use the flesh of the fist and not hit with the bony surface which is painful.

In my experience, the lack of stretching is more important than stretching. Many of our present-day techniques embody the stretching of tight muscles. This merely activates those receptors sending impulses to that muscle and, although range may be gained, there is inhibition of the weak antagonist and therefore it is more difficult to get voluntary control of the opposing muscle. This is particularly true of the anterior tibial which has been inhibited by stretching of the heel cord. Splinting to maintain position can be done more easily by stronger stimulation reflexly of the weak muscle. On stroke cases we had no splints at all, and on many of our cerebral palsy youngsters we had them taken off, and the youngsters got along very well.

Light work is finer coordination. To give you a sample of muscles which you would use, and the difference between light and heavy work, I should like to take the biceps and the supinator. The biceps muscle is involved with grasp and ulnar deviation, and is activated by stroking the musculo-cutaneous area which is the sensory part of the nerve supplying the biceps and the coracobrachialis. This is specific for supination of the biceps. For flexion of the biceps, the squeezing of that muscle will be more effective. The supinator, on the contrary, is involved in light work (supination to the radial side). Although you may get dramatic results with your stroking of the musculo-cutaneous area for the biceps, it will always be an awkward movement. You will get almost complete range, but only after you have followed it with stimulation of the posterior cutaneous, the brachial and part of the radial. You will get supination with this movement, as in turning cards over. They are two entirely different things. Remember the grip side, (biceps—heavy work) comes first and then the finer coordination (supinator—light work).

The stimulus for light work is primarily stroking. I said in connection with the withdrawal reflex that pain would do it, but that the more pleasant one was the stroking of the cutaneous area. Therefore, stroking is the technique of choice for the fine work muscles. This stroking has to be done at a certain rate: two per second, and at least ten times, then *stop*. This is the hardest thing, I find. It may take a count of 30 before the reaction. This is a multineuron. It goes all the way up to the cortex, and to both sides. You may get your reaction first on the opposite side (this is particularly true in the legs) before you get it on the side you are stroking. It is slow to start, but it has a long after-discharge, unlike those pressure and stretch muscles that acted only as long as the stimulus was there and immediately at the application of it. Often you will find your patient is better after 30 or 40 minutes than he was during the time when you were working with him.

The stroking, as I said, needs to be done two times per second, and at least ten times, and then repeated from three to five times. Voluntary contraction by the patient should then be requested and, because the nervous system has been facilitated, the effort which he makes will go into the proper muscle and he will be able to reproduce that movement. We will have set the proper cortical engram, instead of doing it by passive means.

The tool which I use for this is either the brush from the dime store, or my hand. I have an assortment of brushes for the different purposes: soft camel's hair brushes for the facial musculature; a long handled stiff brush (a very small stencil brush) for the uvula, hard palate and tongue; ordinary one-inch to two-inch paint brushes for the feet. Increases should be affected only by the speed with which it is done and the length of time it is repeated. Do not bear down, this is a light-touch receptor. After stroking, I use the *head* of the pin on that area which will get the same reaction. Continued stroking does not yield a sustained reaction, but stroking, then stimulating will preserve the period of reaction time. As soon as a child is able voluntarily to control his motion, stroking is no longer effective.

Part III. Occupational and physical therapy procedures. This section on specific occupational and physical therapy will be discussed in relation to the above four groups. Before giving these techniques, I want to point out certain important things that you should remember. The first principle, of course, is always the effect of the labyrinth and/or the tonic neck reflex which may assist or retard the effect of pressure, stretch or stroking. And what are these effects? Sensory receptors in the labyrinth are affected by the position of the head in relation to gravity. In the upright position, 180° protractor or 90° upright, the effect is neutral on flexor and extensor tone. As the face approaches 0°, or the horizontal, extensor tone is released allowing final flexor tone to be dominant in all four extremities. The key for that is *face, forward, flexion.* If the back of the head approaches the horizontal, extensor tone will increase toward 180° in all four extremities. One of the things to remember about the labyrinth is that it particularly affects the distal extremities. If one ear is toward the earth's surface, the arm and leg of that side will exhibit extensor tone and the opposite side will be flexor-predominant.

Tonic neck reflex has a modifying influence on extensor tone, affecting most strongly, not the distal end of that extremity as in the labyrinth, but the quadriceps and triceps, the postural part. The TNR is a relationship of head to neck, no matter what position the head is in with relation to gravity. Labyrinth works with the head in relation to gravity. The TNR with which we are most familiar is seen in turning the head toward one shoulder, causing definite extension of the arm on that side, and affecting the quadriceps.

A few samples of the effect of these two on some treatment which you might give are:

1. In a cerebral palsied baby, the serratus for shoulder flexion may not be activated by stroking the axilla in the back-lying position because of the extensor tone of the labyrinth. But if that baby is turned on its side, the ear to the ground, the top side will be flexor predominant and the serratus can be elicited immediately.
2. Flexion predominates the feeding pattern. A baby with increased extensor tone from irritation of the labyrinth cannot feed from a bottle in the back-lying position. This is very easily corrected. The mother's breast placement would take care of this in the normal case.

The second principle is that stimulation of specific receptors will give specific reactions which are meant for maintaining, protecting and developing the skills of the body. It is necessary to know where and what to do. Ice applied to a voluntary muscle relaxes it for a short time, but the derivative or aftereffect of increased circulation will follow with concomitant contraction unless other techniques are used to stimulate the antagonist thereby inhibiting the action of the muscle to which ice was applied. There is, of course, a specific temperature of 15° or 16°C where we get this derivative effect.

The third principle is that muscles have different duties. They do not all do heavy work or light work. Most of them are a combination, but some predominate in light work, others in heavy work. Both may be stimulated as needed. As an example: in a stroke case where stroking alone was done to the upper trapezius, there was return of only part of the muscle until squeezing of the muscle belly and resistance work was given. The

reverse procedure was done on a seven-year-old spontaneous CVA to get the whole upper trapezius.

Fourth principle: Heavy work should precede light work except in the case of speech and feeding muscles. Dramatic work can be done by stroking the radial and median nerve supply, but it will never be as effective as a gross grasp done first. Unless we get the lumbricales, the interossei—the stabilizers of the wrist—we will never have good work, no matter how dramatic, or how much the light work muscles can be developed by the stroking. I had a CVA patient on whom I did all stroking, and he was doing everything, except he could not pick up a skillet. This is an Area 6, the heavy work pattern. The stroking, however, will assist in establishing some of the heavy patterns, but it requires the heavy work to follow through.

How can we get this? The simplest way is crawling. Heavy work develops co-contraction of synergy. It needs to be the base pattern to make more easy the light work of fine coordination.

The final principle is that activation is from the head on down, muscle by muscle, from the cervical segments down to the sacral. Flexors are stimulated first, extensors next, adductors third, and abductors fourth.

In discussing specific techniques, let us start from the head and proceed distally. There is no cervical 1 representation cutaneously. Remembering that, we should consider the flexors first. The first flexor is C2 for the short neck flexors which flatten the physiological curve of the back of the neck. This is one of the things which is most difficult in cerebral palsied children. They have, instead, an activation of the posterior primary rami. The back of the head scrubbing on pillow or chair activates the short neck extensors, increasing the physiological curve. So this is the first one, and in most cases we do not have to treat the extensors of C2.

Next would be the long neck flexors, the sternocleidomastoid. We would have the patient try to raise the head against gravity. We do not work hard for heavy work for the sternocleidomastoid, but we do work for heavy work for the extensor antagonist, the upper trapezius, on C3 and C4. Because it is slow, the stroking has to be done as the first sequence. Then we squeeze the muscle belly and give resistance patterns. These are important because they affect the labyrinth and the tonic neck reflexes. We need stability of the head first before we attempt control of any of the other things which are going to be done. Therefore these neck muscles are most important and should be started first.

When stroking C2, do not get too far out on the chin. This is an area for light work and the child will drool more and be unable to keep his mouth closed. In doing the sternocleidomastoid, avoid the triangle which is on the hypoglossal roots and is for swallowing and other disabilities.

Stroke the supraclavicular area on down. Muscles which should be squeezed would be the deltoid and the supraspinatus which to my mind is the most important of all. If that isn't activated, it is difficult to get good shoulder action. Remember the sequence: flexion, extension, adduction, abduction. In most cases when working for abduction, we tend to try to do abduction before we have the short rotator which is the anchor for elevating the arm. If abduction is attempted before activating the short muscles in flexion and extension, we get jamming of the head of the humerus up into the socket and a bursitis can result.

Stroking. I consider this the most important activity for occupational therapy. If the foot is everted, the stroking of the saphenous and the deep peroneal, which I mentioned before, will automatically bring the inverters into play. If the feet are inverted, then the superficial peroneal will be activated by just crawling, and eversion will occur. The upper extremity has pressure and gravity affecting it. The sequence, briefly, is static, bilateral movement, then work with the antagonists, agonists and antagonists together, and then the torsion. There are many things for torsion which you should do as occupational therapists. You can work with small slant boards which would hold the patient in the first position which precedes crawling, that is, on the elbows but not with the elbows extended. Here there is activation of the serratus and activation of the pectorals. I usually put my hand underneath, squeeze the pectorals, my thumbs up in the axilla to get the serratus. But prior to this I have done stroking of the pectorals, of the supraclavicular and all the neck muscles. All work should be done to call into play these short neck flexors.

I haven't given you the techniques which are such fun and so exciting. In occupational therapy, the activities which you are going to do, need to be done over and over and over, and they have to be fun, and they have to be done properly. We haven't done what we need to do in occupational therapy. We need to study. We need an understanding just as we need our basic science. But if we will all help, I think that we can have a real "bridge to the future."

SUGGESTED READING

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SPASTIC HEMIPARESIS: AN EXPRESSION OF FAULTY "FEEDBACK?"

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INTRODUCTION

Despite a re-awakening of clinical interest in the rehabilitation of patients with spastic hemiparesis, there is little objective evidence that motor recovery in the individual patient has been altered significantly by any form of therapy promulgated in the past 50 years. Since the termination of World War II, treatment facilities have been made available to increasing numbers of patients, but management of the individual hemi-paretic patient has altered little. What was described lucidly as the "classical hemiplegic posture" in the early 1900's now merits the nondescript euphemism of a "satisfactory rehabilitation result."

To explore the hypothesis that the typical picture of postural hyperactivity was, in fact, the usual outcome in spastic hemiparesis, we made detailed observations on motor recovery in a series of 195 patients. We were able to observe the sequence of spontaneous (therapeutically uninfluenced) recovery in a control group of 11 patients, whose hemiparesis has followed cerebral trauma. Another group of 17 patients was treated by the commonly accepted regimen of muscle reeducation, early and persistent ambulation, and intensive training in activities of self care.

In the remaining 167 patients, more rigorous attempts were made to curtail afferent stimuli which might possibly reinforce already overactive postural muscles. In these patients, ambulation was restricted, reeducation exercises were prescribed in a highly selective fashion, and self care activities were withheld until late in recovery. In addition, there was a rigorous scrutiny kept on all forms of occupational therapy, and efforts were made to eliminate any activity which tended to increase the imbalance existing between flexor and extensor muscle groups. As a further aid in the re-education of more weakened muscles, surgical means of reducing afferent return from their overactive antagonists were used in 44 patients of the whole series.

I. *Age of the patient*

In this series, the average age of the patient was somewhat younger than might be seen in a civilian hospital. While a large proportion of the successful results were in the younger age group (20 to 40 years), on the other hand many patients between the ages of 60 and 80 made more substantial motor recoveries than we had anticipated. Although no analysis of the actual relationship between extent of recovery and age of the patient was attempted, it was our firm impression that age in itself should not be considered as the major determinant in arriving at a prognosis.

II. *Etiology of paresis*

Of far greater significance was the correlation between the etiological factors productive of hemiparesis and the subsequent functional recovery. Localization of the site of arterial occlusion permitted Rosegay and Welsh[1] to predict the degree of motor recovery. These authors concluded that occlusion of the middle cerebral artery at its proximal stem results in irreversible damage to the axons within the internal capsule.

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Occlusion of this artery at a more distal sight appears to be less catastrophic. The existence of thrombosis of the internal carotid artery has also been associated with poor motor recovery. In four patients with occlusion of the anterior cerebral artery, we observed excellent spontaneous recovery of function in the contralateral arm with poorer recovery in the lower extremity. Because of the relationships between site of disease and return of motor function, an effort should be made to locate the cortical damage before prolonged rehabilitation is undertaken.

III. *Alterations in afferent relays*

A. At the supra-spinal level. Frequently there is an associated sensory loss when infarction or edema involves the "leg area" of the internal capsule. This is, of course, due to the close geographic relationship between the axons conveying motor signals to the leg muscles and those conveying sensory signals from the limbs. Damage to a large number of axons conveying proprioceptive signals from the limbs should therefore be suspected and searched for in all patients with extensive destruction of function in the lower extremity. The commonly employed tests for such proprioceptive loss, such as the patient's perception of minor displacement of the fingers and toes, are not always sufficiently exhaustive. An attempt should also be made to assess the patient's ability to distinguish displacement of the limb about more proximal joints. Where such deficits are found, it is also necessary for the therapist to augment proprioceptive re-education exercises with alternative exteroceptive signals from either tele- or tango- receptors. It is widely recognized that the utilization of visual and contactual stimuli, as Rood has eloquently advocated in this symposium, may compensate for temporarily or permanently disrupted proprioceptive signals. The early findings of massive deficits in joint sensibility may save the therapist the embarrassing and wholly unrewarding experience of persisting in costly training of an uneducable patient.

The presence of Anosognosia may also have considerable influence on ultimate recovery. MacDonald Critchley[2] has described its most striking feature as one of failure on the patient's part to realize the extent of limb paralysis. Interestingly enough, Critchley in this article has castigated those workers who would "still tend to parcellate cerebral function, and to relegate speech to one hemisphere and corporeal awareness to the other." Fore knowledge of sensory dis-array may sometimes save the therapist from the necessity for later, and often agonizing, re-appraisal of the value of occupational therapy in upper motor neuron diseases.

B. At the spinal level. In a previous detailed report these authors have referred to the changes in "feed back" which prevail at the spinal level following interruption of down-coming inhibitory relays. They have likened this increased excitability at the spinal level to the central excitatory state (C.E.S.) described by Sherrington in his basic physiologic experiments. Following interruption of inhibitory relays, there is in the spinal cord centers a state of excessive preparedness for incoming proprioceptive stimuli. The question may well be asked, "Do afferent relays from paired antagonists, namely from flexor and extensor muscles, achieve equal facility in relaying around motor neurons? Is the feedback from the flexor muscles just as strong as it is from opposing extensor muscles? Following the ending of the state of absolute flaccidity, there is obviously an imbalance initially in the rate of reflex return and later of returning volitional control over opposing muscle groups. In the arm, with which we are mostly concerned in this report, there is accordingly a greater proprioceptive return from the flexor-adductor-internal rotator muscle groups than from their antagonists. It would follow from this that there is an increased ease of access to the flexor motor neurons. In any such system of relay it is likely that there would be a steady reduction in the number of pathways available to afferent signals from receptors in extensor muscle groups.

In addition there is experimental evidence that the synapse is actually "pre-set" in favor of selective "charging" of flexor motor neurons. Proprioceptive feedback from flexor muscles has greater ease of access to the available motor neuron supply because of the existence of selective resistance at the synapse. A possible phylogenetic basis for such a state would be the fact that the flexor groups in the higher apes and in man are in fact the postural muscle groups, because of their assumption of the function of supporting the pendant upper extremities against the force of gravity. As described by Russell Brain[3], the synapses in the higher ape are organized in favor of the maintenance of the "resting posture" of the monkey's forelimb—a position of flexion at all joints. What appears to exist in the spastic hemiparetic patient, then, is a temporarily deranged spinal servomechanism, whose feedback signals are markedly out of balance. In any attempt to rearrange such an imbalanced state, it is essential to control by every available means this disproportionate feedback to the flexor motor neurons. From this it may be argued that a most important determinant in recovery, next in importance to the etiological factors productive of hemiparesis, must be the manner in which the

therapist utilizes afferent signals to modify electrical activity at spinal synapses.

CAN RECOVERY BE INFLUENCED BY THE CONTROL OF AFFERENT SIGNALS?

I. The influence of the gravity stimulus on spinal relays

No stimulus to sensitive spinal centers has the same potency as that of gravity itself. This is very apparent in the immediate asumption of the flexed position of the arm when even a partially flail hemiplegic stands up. This is merely a reflection of the influence on sensitive spinal center of afferent relays from the sole of the foot, from stretch receptors in antigravity muscles of the lower extremity, and in the truncal and neck muscles. The erect posture also causes an increase in number and in frequency of excitatory relays from the vestibular apparatus. A survey of the literature on spontaneous recovery in hemiplegia has failed to provide us with a single example of an author who claimed that the gravity position favored either reflex or volitional return of extensor activity in the arm. It has been our experience that the presently popular insistence on early and persistent ambulation can, in itself, be a major deterrent to recovery in the extensor muscles in the arm. Because of this, we have advised very specific restrictions on the amount of stance or ambulation allowed individual patients. Our purpose was to protect sensitive spinal centers from massive afferent relays which might further augment the rate and amplitude of unopposed flexor return in the arm. For similar reasons we have repeatedly advanced the proposal that the role of the gravity stimulus should be adequately and critically reviewed in each case during the all-important early phase of oncoming volitional return.

II. The use of stretching stimuli

Many of the means available for proprioceptive facilitation of returning voluntary power depend on the activation of stretch reflexes. The therapist should seriously consider any possible harmful effects of such methods of retraining, particularly when they are applied to the flexor groups of the arm. Prohibition of stimuli applied to the flexor side of the arm, such as Rood has proposed, needs once again to be stressed forcibly. Contactual stimuli when applied to the flexor surface of the forearm and hand have been shown very clearly by Twitchell[4] to contribute further to the augmentation of existing flexor preponderance. When these stimuli are moving in nature, and particularly when they are applied to the palmar surface of the hand, there is every likelihood of a widespread "fusion" of electrical discharge to all available flexor neurons in the upper extremity. Hence, the bouncing of rubber balls, or the moving of protective devices on the flexor surface of the arm are potentially harmful, and are mentioned in this report merely to be condemned. Similarly, the only truly effective and safe splint for the prevention of overstretching of paretic extensors is the early activation of these extensors themselves.

III. A chronically maintained position of the arm in extension

Earlier in this century, considerable controversy existed about the merits of Foerster's[5] hypothesis that voluntary return could be influenced by the maintenance of a chronic position of extension at the elbow and wrist joints. Foerster held that the degree of reflex irritability could be altered from one side of the arc to the other by maintaining this posture of the limb for a sufficient period of time. Walshe[6] failed to corroborate the clinical results reported by Foerster. However, there does exist early in recovery a short-lived phase of extensor hypertonus in the upper extremity. Furthermore, we have seen two patients with high cervical cord lesions, who showed considerable extensor hypertonicity and later showed relative "decay" of voluntary return in flexor muscles. The arms, in both of these patients, had been maintained in the position of chronic extension at the elbow joint during most of the recovery cycle. Both offered examples of the extension reflex of the upper limb described many years ago by Riddoch and Farquhar-Buzzard[7]. The gross movement that these patients exhibited was one of shoulder elevation, adduction, and inward rotation, combined with extension of the elbow, hyperpronation of the forearm, flexion at the wrist, and extreme adduction and extension of the fingers and the thumbs. Certainly it has appeared to us that a series of controlled studies should be made on the effects of a chronically maintained position of extension of all arm joints during part of the recovery cycle. Such a position would of course have to be maintained by restraints which were circumferential in nature so that the resulting contactual stimuli would be applied equally to the flexor and extensor sides of the arm. A tight fitting plaster cast would appear to be the one most likely to satisfy this requirement.

IV. *The dangers of supramaximal stimulation of paretic muscles*

As previously described, we[8] have been greatly impressed with the delayed return of the proximal muscles of the arm, particularly those which aid in scapular fixation, and in abduction and flexion of the glenohumeral joint. The gravity stimulus appeared to act rather perversely about these

joints in that it produced harmful "overloading" of these particular muscles. In all joints distal to the shoulder joints, the gravity stimulus was of use in re-education of both reflex and volitional activity. However, about the shoulder, it seemed to act as a supramaximal stimulus, whose use actually was deleterious to spontaneous recovery of these muscle groups. From this observation arose a natural concern for the protection of these proximal "fixator" muscles throughout most of the recovery cycle. Our purpose in alluding to this is to direct attention to the need for support of these muscles so as temporarily to relieve them from their functions as "sling supports" for the weight of the paretic arm. Hence, the employment of armrest on the wheelchair, and later of overhead slings when volitional activity had returned about the elbow joint, was recommended for most patients. When the patient resumed walking, these "sling muscles" were often not sufficiently recovered to withstand the full effect of gravity. Accordingly, mobile suspension apparatus was advised until adequate volitional control over shoulder fixation had been achieved.

V. Surgical de-afferentation

In those instances where it was apparent that afferent signals from flexors and extensors could not be balanced by conservative means, the possible benefits of surgical interruption of flexor feedback were discussed. This can be accomplished either by operations on end-organs, such as tenotomies and tendon re-locations, or by mechanical interruption of dorsal roots or of the mixed axons in the peripheral nerve.

Temporary interruption of conduction in the median branches to overactive finger flexors has been performed in nine patients. Since the aim of the surgical procedures was to produce a balance in activity of antagonistic muscle groups, nerve interruptions were also combined with tendon transfers in five of these nine patients. The most commonly performed transfers were of the flexor carpi radialis to the long extensor of the thumb and of the flexor carpi ulnaris to the common extensors of the fingers. In three patients, these procedures were combined with sectioning of the tendon of the palmaris longus. The results of these operations in terms of functional improvement were rated as excellent in four patients, as moderate in three patients, and as poor in two other patients. All of the patients chosen had been given extensive and prolonged preoperative treatment by every available method of proprioceptive facilitation. On the basis of our preliminary experiences with these additional surgical means of influencing afferent return, it is our intention in the future to advise temporary surgical deafferentation with increasing frequency. Our partial success with this method also encourages us to review, and perhaps to revive, many of the older surgical procedures employed in the treatment of juvenile spastic hemiparesis.

SUMMARY

Obviously this report poses a great many more questions than it offers answers. There is a real need for a thorough "house cleaning" of the many "empirical cobwebs" which surround the treatment of spastic hemiparesis. We have attempted to express certain neurophysiological principles, whose importance in management of the individual patient seems to have been either overlooked or deprecated. Chief among these has been our reiteration of the need for supplanting of the efferent theory of motor return with all its implications of "re-education of alternative cortico-spinal pathways."

In a limited series of patients, it has been our experience that by more vigorous control of afferent signals acting on spinal centers, a more satisfactory state of balance between opposing muscle group can be achieved in a considerable proportion of hemi-paretic patients. Some of the less complex means of altering feedback have been outlined in the hope that others may experiment with, or improve upon, these methods.

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THERAPEUTICALLY INFLUENCED RECOVERY

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SECTION I

Volitional Movement

Introduction. Early in our search for better ways to treat the brain injured, the eternal plaguing question arose; "What was the nature of voluntary motion?" This question, of course, arises in the treatment of other disabilities, but in the case of brain injuries, its demands cannot be denied. Such an inquiry was particularly relevant to occupational therapy since it is the nature of its media and techniques to work through the volitional aspects of movement. To influence the returning function of the brain injured at Letterman Army Hospital, we had therefore, first, to acquire a better understanding of voluntary motion, and second, apply our findings to the motor recovery of selected patients.

Theories of muscle response. In the past few years, the use of nervous system mechanisms to augment muscle response has been prominent in therapy. A recent study in the field of occupational therapy by Ayres,[1] has provided us with timely data on influencing voluntary muscle response. She described the function of the nervous system as being based upon reflex activity and reports that proprioceptive facilitation plays an all important role in conscious activity. These facts are not new ideas—they are merely new to us in rehabilitation. Theories about muscular response have appeared before in our literature and become accepted basis for our practice. The facilitation theory might well be considered another evolutionary outgrowth of muscle action principles.

Sensation and volition. A more operational understanding for controlling movement was found in the 1949 work of William Goody[2] on *Sensation and Volition.* He pointed up the great fallacy inherent in the separation of the sensory and motor systems in the performance of voluntary movement. Voluntary movement was viewed as sensation and motor forming a single indivisible process. He believed that the pyramidal tract should be dethroned from its importance to voluntary motion, and that the greater weight should be given to the overlapping function of the sensorimotor cortex. In this concept the lower motor neurons become the effectors, the pyramidal tract was considered internuncial, and the afferent neurons are the sensory components of movement. Goody established one more point that has great significance for us in rehabilitation. He stressed that volitional movement was directly related to human perception, and that afferent data streaming into the central mechanisms had to be perceived subjectively. Sensation was defined as a subjective phenomenon. This means that the study of voluntary motion in animals has its limitations when applied to man. Human knowledge, or the ability "to know," he quoted as being a matter of indifference to apes, frogs, and octopi.

Sensory perception. We have long known that the sense organs provide the central nervous system with numerous and divers stimuli. The main bulk of the afferents are subconscious, or received so consciously, so habitually, as to be disregarded unless attention (itself a sensory concept) is called to it. The multiplicity of afferent stimuli flowing into the central nervous system form patterns of sensation. The most powerful assertion that Goody made is that learning occurs through patterns of sensation and not through patterns of movement. There is growing confirmation of Goody's findings in the work of other neurophysiologists. Willed movements, Walshe[3] says, contrary to popular assumption, do not start from a mechanically contrived keyboard in the motor cortex, but are initiated and directed by the receptor system. We know similarly from Goody that a willed movement is not predetermined in form, duration or complexity, but is rather molded in its entire course by impulses from visual exteroception and proprioceptors. Gellhorn's[4] findings are essentially the same, but couched in more complex language. He states that the function of voluntary movement is a diffuse cortical motor discharge which is modified, sustained, and directed into the desired pattern through proprioceptive impulses.

Motor learning. The afferent intake, effector output, is one phase only of nervous action and for perspective it should be related to the broader aspects of learning. Efforts to establish the relationship between physiology, psychology and neurology have not appeared to any degree in the literature. Lashley,[5] one of the outstanding workers in this field, refers to this as the unexplored "No Man's Land" between neurology and psychology. He theorizes that the nervous system is an action system to be thought of in the three dimensions of time, space and intensity. A comprehensive approach to man and learning was made by Dr. Roland[6], in his presidential address last year before the American Neurological Society when he spoke on neurological behavior. He described sensory items as falling into clusters; that these proprioceptive clusters have a space and time order in which they appear, and

that the formation of perception begins in early infancy. Later refinement, elaboration and versatility of perception is the essence of learning. How the patterns of sensation are established, re-inforced and modified by the experience of life, he maintains, is the mystery of learning.

We do know, however, that they are established by repeated reception of the patterned stimuli of experience, but their explanation awaits more knowledge of the intimate function of the neuronal network.

Conclusion. From all our vast ignorance of voluntary motion, what are we to conclude? We may conclude that, although today's knowledge of voluntary motion still has many major mysteries unsolved, there are certain fundamentals that should receive our wider understanding and use. These are:

1. That, in willed movements, sensation and motion are considered a single, indivisible, continuous process.
2. That sensation is to be treated as a subjective phenomenon.
3. That voluntary motions are moulded throughout their course by impulses derived from the receptor system, and they are checked and guided and polished at all functional levels by afferent stimuli.
4. That treatment techniques are best developed along the lines of controlled sense organ stimulation.

These are the conclusions which we applied to the treatment of hemiparesis and upon which we based our general treatment procedures.

SECTION II

General Treatment Procedures

Introduction. The traditional picture seen in the hemiparetic is that of an initially flail extremity. This is followed by a steadily increasing state of hypertonia in the postural muscles. The treatment at Letterman Army Hospital was aimed first at the prevention of uncontrolled hypertonia and the protection of the opposing muscle groups. A first principle of treatment in the early stage was to control vigorously certain kinds of afferent stimulation. There were the afferents that increased the charge on the anterior horn cells controlling upper extremity flexion, pronation and adduction. The undesired afferents, we found, arose from the simple reaction to gravity, walking, and use (occupational therapy). We sought to control the influence of gravity on motor return by attention to chronic positioning. Walking and activities of daily living were discouraged, thus lessening the afferent inflow from the palm of the hand and the sole of the foot.

The case against early use. Because the evidence against early use of the hemiparetic extremity was considerable, it deserves some elaboration before this group. It was disturbing to observe that we could entrench pathological movement by encouraging the patient to use his hemiparetic extremity in daily living activities. However, theory and practice justifies this view. An early explanation may lie in Foerster's[7] 1913 belief that certain muscle groups, particularly the flexors of the upper extremity and the extensors of the lower extremity, responded to sensory irritation because of phylogenetic conditioning. He believed that our phylogenesis leads us to mimic the qualities of the climbing monkeys. The apes, he reasoned, received the majority of stimulation from the hand and foot, and therefore made "most use" of the upper extremity flexors and lower extensors. Brain injured man who suffers the loss of higher centers, he observed, reverted to the lower scale of posture.

Foerster's "most used" muscle groups were considered by us to be the postural muscle groups of man. The postural muscles, we believed, were pre-set for spasticity. The patient with spastic hemiparesis, we found, consistently demonstrated a most rapid restitution of the arm flexors following the application of contractual stimuli to the hand.

Sherrington's theory[8] of "selective synaptic resistance" provides us with even stronger evidence for a pre-set spasticity concept. He states that pathways of high and low resistance exist in the spinal cord specifically for flexion and extension. Competing half centers for flexion and extension operate pathologically when the higher centers have been damaged. Unselected afferent stimulation would therefore flow through the pathways of least resistance. We found that activities of self-care produced an embarrassing variety of afferent stimulation, which flowed into the irritable central mechanism. The impulses appeared definitely to be routed to the flexion groups of the upper extremity. Our concentration was therefore upon chronic positioning and selective afferent stimulation.

Chronic positioning. Chronic positioning played a dominant role in controlling hypertonia, and was an important procedure throughout treatment. The levels of recovery were managed, as far as chronic positioning was concerned, in bed, wheel chair and ambulatory stages.

(1) *Bed stage.* At the earliest possible time, the hemiparetic arm was placed in full abduction and external rotation at the shoulder. The therapist instructed the patient, ward personnel and the patient's relatives in the procedures of passive movement and chronic correct positioning. For relief of pain from stretch, the arm could be lowered to adduction temporarily but was kept in full external rotation. The necessity for this position was stressed as a full time procedure to prevent the patient from assuming "the position of ease," namely, adduction of the arm, flexion of

the elbow, pronation of the forearm, flexion of the wrist and fingers. The undesirable position of ease was found to be the extremity's natural reaction to the forces of gravity.

(2) *Wheel chair stage.* Patients were grounded either in wheel chairs or beds, to minimize the influence of gravity on hypersensitive postural motor pools. To lessen the dangers of a hanging arm, we utilized many of the protective devices which the Warm Springs group have popularized. These were the back board, high corset, lap boards, and one of our own—a pan cake hand splint. In addition to protecting joint capsules, these appliances were also found to be helpful in obtaining gross movements of the arm, and preventing lateral trunk listing.

The paretic musculature. A second, but equally important, principle of treatment was the stimulation of hypotonic muscle groups via proprioceptive techniques. The procedures are described in greater detail in the December, 1954, issue of *The Physical Therapy Review.* In general in the early stages, reflex stimulation was given to the lower extremity to prepare the quadriceps for early standing and the hamstrings for phasic contraction. Similar attempts were made to elicit motor responses in the shoulder girdle stabilizers as well as extension and abduction of the arm. Corrective measures were also aimed at the problem of trunk imbalance. We utilized every available method of reflex stimulation, augmented by manual resistive exercises through the available range. Equipment and activities were specifically devised to augment the desired and block off the undesired movements.

Early problems. In the beginning of the study we found it difficult to assess what was actually happening and what influence our procedures were having. There was the probability of spontaneous recovery, and in some patients we questioned how assistive our techniques might be. Different treatment environments we knew made different sensory impressions. For instance, an exercise situation on a plinth in physical therapy had more controlled factors than an activity situation in the workshop. Another problem that arose was the transient nature of the reflex responses. Afferently aroused movements, particularly by skin and periostial stimulation, we found to be unpredictable and with little carry-over from session to session. As seemingly conflicting evidence of change grew around us, it became evident that we had to evolve principles to guide our action.

Action principles for treatment. Developing reflexes into voluntary motion is the basic process of human growth and development. Such motor development has been documented in detail by Gesell and his associates.[9] We drew liberally upon the Gesell findings and found they did much to clarify and guide our thinking. In converting the Gesell findings, we assumed that the re-organization following disease and injury could be equated with that of developmental organization.

Our principles, conceived as they were in the developmental concept, were dominated by the Gesell concept of motor skill integration. We looked upon the returning progression of body motor skills as a continuous process. As we observed the re-organization of the movement in the hemiparetic patient, we came to the realization that function does not return on the installment plan. We recognized the truth of Gesell's postulation that motor organization is a gradual interlocking process, accomplished by a kind of cross stitching or reciprocal interweaving within the structure of the neuronal networks.

In so far as it was possible, our procedures sought to enforce the developmental law that motor skills expand out of the total unitary reaction system. The action principles that we evolved to influence the return of voluntary motion to the brain injured patient in the study at Letterman Army Hospital were:

1. Movement is accomplished in the background of spatial relationships and body equilibrium.

2. All movement brings into play the postural mechanisms which depend for their organization upon visual and proprioceptive clues.

3. The postural mechanisms controlling movement have a heirarchy of influence upon each other: vision controls head movement; vision and head movements determine trunk adjustments; vision, head and trunk adjustments refine the skills of reach, grasp, release and tool manipulation.

4. Voluntary motion develops from the mass reaction state to the localized reflex state which in turn blends into the movement patterns of the body motor skills. The manual skills of man are the learned adaptations of the integrated body motor skills.

Summary. An attempt was made to show the reasoning underlying sensory organ stimulation which was set up as the desirable approach to the restitution of voluntary motion. A genetic orientation was recommended for direction and pacing of such motor function reorganization in rehabilitation.

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SECTION III

SPECIFIC TREATMENT TECHNIQUES

From the principles described in the previous paper, we developed our treatment procedures. These procedures were viewed as "functional units" of motor control. They followed a proximal-distal direction, with each unit dependent on the establishment of control in the preceding unit. These units are:

1. Eye-Head Control
2. Head-Trunk Control
3. Trunk-Arm Control
4. Arm-Hand Control
5. Hand-Finger Control

Each unit will be discussed and illustrated with patients. It should be assumed that even though only one problem is discussed for each patient, we had generalized treatment procedures for all patients.

Eye-head control. We know from our evolved treatment principle that movement occurs in a background of spatial relationships and body equilibrium. It is the peculiar function of vision to assist the body in its adjustments to the plane and solid geometry of space. The eyes constantly respond to shifts of body posture, or they initiate the shifts. The most rudimentary attitudinal reflexes, however, are not dependent upon visual stimuli. The head and neck exert a controlling influence upon the postural attitudes assumed by limbs and trunk.[6]

The first patient to be discussed illustrates what procedures we used to manage eye-head control. His diagnosis: post traumatic head injury. He exhibited hypertonic left extremities, neck rigidity, loss of ability to maintain eye fixation, speech and breathing difficulties.

A test of his visual efficiency showed that he had difficulty fixing his eyes on close objects and holding his gaze on one object; he could not rotate his head fully or look down; his eye movements were jerky; and his attention span was brief. Loud sounds and moving people were distracting influences.

Our first step was to reduce external stimuli by removing the patient to a quiet room. He was provided with a chair which gave support to his trunk, arms, legs, and feet.

Our procedure to induce eye-head control was as follows:

1. The patient closed his eyes and techniques intended to teach relaxed control of the head and neck muscles were used.
2. When the patient acquired the feeling of relaxation in the head and neck muscles, he was taught relaxation as an independent procedure. We encouraged him to establish regular practice periods on the ward.
3. Finally, we attempted to train some measure of eye fixation on objects both stationary and moving.

Head-trunk control. Since eye and head control flow into the control of head and trunk, the preceding patient is used to demonstrate this procedure. We maintained the same simple atmosphere during our training periods and we used the same chair which gave a firm support to his trunk, arms, legs, and feet.

Our techniques were:

1. To train the patient to lean forward in the chair and rock on his hips. This included falling forward and recovering, leaning to the side and straightening, and rotating from side to side.
2. We stood the patient up and taught him to lower himself slowly and deliberately into his chair.
3. We taught him to stand, with aid, from a sitting position.

Gesell states that when neuro-motor organization of the trunk has progressed to the stage where the sitting infant can pivot and regain the upright posture after leaning forward, the legs can also fully support the body weight. However, lack of organic functional relationship between trunk and legs precludes standing.[5]

For all of these procedures we taught the patient to "think" in terms of visual and tactile cues which would help him establish his position in space. For example; we reinforced spatial orientation by having him touch the arms of his chair or a nearby table while learning to rock on his hips. We drew his attention to known upright lines such as the corner of the room, to the feel of the chair on the back of his legs, to his feet to see where they were placed before attempting to sit down in the chair.

As small a gain as it was, it had an extraordinary effect upon the morale of the patient. It

appeared to him to be the first sign that it was possible to dominate his own movement.

Trunk-arm control. This patient was a young woman, a post-surgical cerebellar tumor case. She had controlled use of the postural muscular groups and her sitting and head balance were stable. She exhibited double vision and loss of peripheral vision. Tremor and neck rigidity were apparent with eye movement. She could rise from a chair and remain on her feet for periods up to one hour but her gait was unsteady with a definite staggering to the right, making it difficult for her to avoid bumping into obstacles.

Her primary problem was in space relationships and body balance. To assess what other sensory areas were available for use in planning treatment, we tested her for her ability to distinguish texture; her ability to distinguish shapes —large and small; her ability to distinguish light weights from heavy weights; ability to discriminate colors and shades of colors; her sense of wholeness in objects; depth perception; ability to perceive and respond to sound and rhythm; her memory.

Our testing devices were crude. Through trial and error we attempted to improve our methods of testing and to eliminate as many non-applicable factors as possible.

Some of the tests that we used were:

1. *Object discrimination.* We used three flat wooden shapes; the triangle, square, and circle.
2. *Sense of wholeness.* The triangle was placed on top of the square, the circle on top of the triangle. Could the patient distinguish the differences between these three shapes?
3. *Weight discrimination.* Three wooden blocks, identical in every respect except weight were used. Two of the blocks were leaded so that the weight varied: ½ pound, ¾ pound, and 1 pound.

We found that we could improve her vision by placing her work in the left visual field. It was further improved if a patch was put over her left eye which reduced her double vision. We placed her within a small working area that included other people and many physical objects. By concentration on the location of sound and by visually relating herself to the objects she was able to establish herself in space and to move around within the area without staggering. Rhythm was introduced in gait training and relaxed swinging of the arms. At first she walked holding a cane above shoulder level (technique common to tight rope walking). These three techniques were used to enhance her gross control in spatial relationships. For fine control of arm movements in space, we stressed activities such as throwing and catching a large ball; working with clay; playing checkers; construction with shapes; drawing and coloring.

From this patient we learned how to train for accurate use of residual vision, and the importance of building careful eye habits. With cooperation from patient and frequent periods of practice, vision training improves space relationships and body balance.

Arm-hand control. Our retraining procedures for patients who had complete loss of arm-hand control started with attempts to gain voluntary scapular fixation and progressed in a proximal-distal direction to voluntary control of forearm and wrist extension.

Two patients illustrate this method of treatment. One is a post-traumatic head injury and the second is a cerebral vascular accident (CVA). Both of these patients presented a similar picture; the approximate duration of injury, loss of voluntary control of gross and fine movements of one entire side, similar surgical procedures to the involved side.

We started retraining techniques for scapular fixation in the following way. The patient was positioned in a clinic chair and both arms were suspended in slings. Next he twisted his trunk from side to side. This movement appeared to evoke proprioceptive facilitation of the extensor mechanism in the shoulder and tended toward aiding voluntary scapular control. The procedure stopped when voluntary contraction of shoulder stabilizers could be felt.

The second step was to apply resistance to the arm extensors by means of weights attached to a pulley. This followed Kabat's assertion that the weaker of two extremities will show a stronger response with the use of bilateral patterns,[7] and Gellhorn who stated that tension, unavoidably created by resistance, causes an increase in proprioceptive impulses.[4] We considered this procedure an effective "warm-up" period to be followed by sanding on an inclined sanding board. Results were better following the period of "warm-up" than if we used the sanding board without it.

Both patients were able to achieve some degree of scapular control. The head-injured patient tended to be more successful at establishing voluntary control than the CVA patient.

When scapular fixation was under voluntary control, we attempted to gain voluntary extension at the elbow and wrist joints. The patient was positioned at a high table and the forearms were placed on rollers. He learned to initiate forearm extension. Sandbags were added and he pushed them off the table. Next, he was positioned in a chair, arms in sling suspension. Resistance was applied to the triceps and the patient extended at elbow and gleno-humeral joint.

At this stage of neuro-muscular re-education, differences were noted in the performance of the

two patients. The head-injured patient had no difficulty comprehending instructions and he carried out directions without supervision. The CVA required constant supervision. He did not show a carry-over of understanding and could not follow instructions.

Though we can not say that the differences between the above two patients are due to the ability to comprehend instructions, we feel that comprehension is a strong factor in any process of motor relearning.

If we gain voluntary extension at the glenohumeral and elbow joints we are ready to move toward control of voluntary wrist extension. We applied a heavy load of resistance to the extensor surface of the forearm with the intent of inducing over-flow of the extensor groups in the wrist. For a brief period we elicited extension to the wrist following resistance to the triceps. However, this response soon changed and extension of the elbow caused strong flexion at the wrist. Gellhorn described a phenomenon which he called the biceps and triceps complexes. He pointed out that the position of the extremity influenced the direction of facilitation to a group of muscles, and that volition would dominate the pattern.[3,2] This suggested to us that activities which required thinking in a pattern of extension for the whole extremity would dominate the flexor movement. We did not have time to try this but we suspect that willed intention will hold extension movement.

Finger-hand control. Voluntary release is one of the most difficult activities for the hemiparetic to master. Gesell has described the synergic pattern of release as the antithesis of the grasping pattern. It requires inhibition of the flexors which is more difficult than inhibition of the extensors. Cortical control of finger extension takes place only after reaching and grasping are pretty well perfected.[5]

The phases of release are described as:

1. Release of an object following compression of the elbow joint which stimulates extension of the fingers. Extension may be elicited from pressure applied to the palm of the hand during extension of the forearm.[1] The extension reflex is elicited even though it seems that grasp is involved.
2. Release of an object inadvertently dropped.
3. Deliberate release of an object.
4. The accurate placement of an object coupled with simultaneous release of the opposed thumb and forefinger and correlation with the proper movement of the hand.

Other activities utilized to help evoke hand-finger extension were ball and bean bag throwing, wood planing, and sawing.

The final step is writing. Writing also follows a proximal-distal development and skill in writing is related to the progress the patient makes in reducing the number and magnitude of superfluous movements.[5]

Summary. A representative group of patients was selected and the diagnoses of post-traumatic head injuries, post-surgical cerebellar tumor, and cerebral vascular accidents were covered.

The techniques of eye-head control, head-trunk control, trunk-arm control, arm-hand control, and hand-finger control were applied and some of the observed results were described.

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Thirty-ninth Annual Conference

AMERICAN OCCUPATIONAL THERAPY ASSOCIATION

September 28-October 5, 1956
Hotel Nicollet
Minneapolis, Minnesota

General Theme

TIME FOR REFLECTION

PRESCRIBING AND ATTAINING PRE-DETERMINED GOALS

Neuropsychiatry

H. K. ELKINS, M.D.*
N. MERYL VAN VLACK, O.T.R.
STANLEY E. MARCIL**

There are four principles to be observed in prescribing activity treatment for neuropsychiatric patients. These guiding principles will help the prescribing psychiatrist and the occupational therapist determine what modality will be used, by whom, how and why it is being administered.

1. *Some understanding is necessary of the patient's feelings which determine his behavior.* The occupational therapist must treat not only overt behavior but the emotional origins of behavior. In order to accomplish this, the prescribing psychiatrist and the occupational therapist must know what is going on psychologically with the patient. Usually a statement can be made in a single sentence which attempts to relate the defensive purposes of the patient's behavior to his fundamental feelings. For example, both the psychiatrist and the occupational therapist must understand why a particular patient acts in a withdrawn manner: Is he acting withdrawn because he feels overwhelmed by his own anger and fear; because he feels useless, unwanted, or unworthy; because he feels omnipotent; because he feels different sexually, or socially, or merely because he knows he is ill.

Any of these or other fundamental feelings might determine a patient's withdrawn behavior. These same feelings might also prompt him to act in a very hostile manner. Hence, not only the patient's outward behavior, but his feelings which determine this behavior, are important if we are going to treat him effectively.

Any statement of dynamics may be very tentative and incomplete at first. The psychiatrist does not know all about the patient right away, and prescription-writing is not a one-time procedure. As the patient is better understood by both doctor and occupational therapist, changes in approach, modality and goals will occur. The occupational therapist, in the process of her treatment, helps the psychiatrist amend and refine any original statement of dynamics.

There is no other field of medicine in which treatment and diagnosis go on to this extent at the same time and in which the occupational therapist shares so intimately in diagnosis as well as in treatment.

2. *The personality of the therapist is frequently of greater importance than the modality.* The prescribing psychiatrist must be aware of the personality strengths and limitations of the occupational therapist to whom he assigns a patient. Not all therapists will work equally well with a patient's dependent needs, his verbal aggressions or his problems of sexuality. The psychiatrist must be aware of his occupational therapist's limitations and, at times, help and guide the therapist in meeting particular situations with patients.

Selection of the modality is usually less important but may have great significance. Generally speaking, the patient should be allowed to choose his own modality, at least for some portion of his total activity program. It may be important for the psychiatrist to help the patient understand the psychological meaning of his particular choice of modality.

3. *The act of prescribing activity treatment is in itself a treatment procedure.* Most emotionally disturbed patients retreating from reality, resist change. Any disturbance to their equilibrium which they have established for themselves is frequently met with suspicion, negative behavior, or hostile action.

The prescription of activity should be performed in an atmosphere which conveys to the patient a feeling that he is being considered and helped. The prescription may be tied to something else which the patient actually desires, such as personal attention or tangible reward, or special consideration to use certain facilities, more security, or the freedom of ground privileges.

Most patients, if given their own time and exposed to an activity which is simple and has attractive interest, will come to participate in it

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by themselves if they feel secure rather than coerced.

4. *Occupational therapy may be used to support and strengthen the patient's confidence in himself or it may sometimes be used to provide insights into emotional conflicts.* Real progress does not occur in emotional illness unless areas of anxiety are eventually entered, and emotionally understood and accepted by the patient and his psychiatrist. In prescribing activity treatment for neuro-psychiatric patients, it is necessary for the occupational therapist to know when to be purely supportive and when and to what extent one should lead the patient into or allow him to enter areas of anxiety. Creative productions are frequently useful for providing insight. Actually any aspect of the patient's attitude and behavior in the occupational therapy clinic may be used for insight purposes.

The prescribing psychiatrist must keep in mind to what extent he expects the occupational therapist to use one or the other approach to the patient. If there is any doubt in this matter on the part of the occupational therapist, the therapist would be wise to err on the side of being purely supportive.

No scheduling of activity is an easy affair. It is not always possible to predict how the patient will react in the prescription interview.

Tuberculosis

WILLIAM CASSIDY, M.D.*

THE ADJUSTMENT TO HOSPITALIZATION

The role of occupational therapy in the management of tuberculosis cannot be fully appreciated unless one concedes that in addition to its literal meaning, occupational therapy encompasses also diversional, recreational, educational, and other closely related activities. If this definition is accepted as truly expressive of the meaning of the term, it becomes obvious that occupational therapy is an essential part of the treatment of tuberculosis.

Although it appears that we are at the threshhold of a new therapeutic era in which antibiotics or some chemical agents may prove to be the means which is capable of curing tuberculosis, and in spite of a great variety of medical and surgical methods used, bed rest remains the cardinal measure in the treatment of this disease. A chronically ill person is bound to develop a sense of inferiority and defeat. It is well to remember that only holding out to him a reasonably happy and contented future will make him accept the sacrifices of "cure-taking" for years.

Regardless of the category of rest and exercise to which the patient is assigned on the basis of clinical findings, occupational therapy represents the connecting link between the medical-surgical treatment and the reinstatement of the patient in normal social and economic life.

The basic axiom should never be forgotten that the treatment of tuberculosis does not end with the treatment of the diseased organ, but is concerned with the patient as a human being and as an individual. A mental crisis or emotional shock caused by the realization of having contracted tuberculosis cannot be corrected by bed rest. Only individual approach and sympathetic understanding together with adequate assistance toward proper adjustment to the disease and optimistic encouragement for recovery are helpful in this respect.

PREPARATION FOR REHABILITATION

The aim of all concerned with each case of tuberculosis should be preparation of the patient for rehabilitation. In this age of specialization when one speaks of rehabilitation, the thought of special agencies comes up. These definitely have a place, however we here are discussing the patient in the hospital. The quality of occupational therapy depends upon the quality of the occupational therapist. Its value should not be judged by the kind and amount of finished product turned out by the patient but by the constructive changes in the patient. Occupational therapy, being an adjunct to medical treatment, should always fit into the general management of the patient. A great deal of individualization is necessary in the selection of actual work for the patient. Whatever plans are formulated, it is preferable to take a long-range view of the issue on account of the chronic nature of the disease and the protracted stay of the patient at the institution.

Assignments for handicrafts should be so arranged that the physical effort required is slowly and gradually increased. The profit motive on the part of the patient must be averted. Crafts practiced may or may not have anything to do with the patient's future employment, but they help to restore and maintain his will power and energy. Parallel with the patient's physical im-

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provement, his occupational therapy is expanded and made more practical. Through the cooperation between the clinician and the occupational therapist a transition is built up to actual rehabilitation. It is preferable that all patients return to their former line of work provided it is not incompatible with their physical condition and with the protection of their health.

SUE KINDALL McHENRY, O.T.R.

The occupational therapy prescription used in the sanatorium at the Monterey County Hospital is a simple identification form containing the patient's date of admission, diagnosis, grade of exercise, hours of work allowed per day, and precautions or special instructions if any. The therapist accompanies the staff physician and the resident on weekly ward rounds, at which time any recommendations for changes in the amount or intensity of exercise are made. At the foot of each bed on all wards a board is posted with slots for approximately fifteen cards. These cards provide all members of the staff with a complete picture of each patient: his name, date of admission, a record of all treatment including drugs, surgery, privileges, occupational therapy, school activity and any positive laboratory findings.

Strict bed rest is prescribed for all newly admitted patients. During this time the therapist has no prescription for occupational therapy. However, she will have the opportunity to gain necessary information from the patient's records that may serve as an aid to establishing rapport. When she contacts the patient she has an opportunity to answer any questions concerning the hospital and the basic nature of the disease. At this time the patient may be encouraged to participate in pre-occupational therapy activities requiring no physical exercise. Listening to the radio and making use of available reading materials provide contact with the outside world. Through these services, and in subsequent interviews, the therapist can discover the patient's interests and ambitions which may serve as a guide in planning his future activities.

Our first goal, as Dr. Cassidy has pointed out, is to assist the patient toward proper adjustment to his disease and surroundings. By providing satisfying activities, the therapist may replace unhealthy attitudes, gain cooperation, and help him accept long term care. Graded exercise, which has been classified as metric occupational therapy, provides a means for measuring the progress of work tolerance and the effect of exercise on the patient's condition. Exercise has been divided into four main classes: grade I, II, III, and predischarge. The grade level and the number of hours the patient is allowed exercise is based on clinical findings and is prescribed by the physician. Following chest surgery, specific muscular exercise may be prescribed to restore function to muscles of the shoulder girdle. When physical therapy and occupational therapy are prescribed for these patients, fewer deformities have resulted.

Our second important goal is the conditioning of patients for what is to follow discharge. When the physician decides that the patient is ready to participate in a progressive mobilization type of program, the therapist is responsible for seeing that the prescribed activity is carried out daily. By this time, she has had an opportunity to discover any latent skills that may exist and can assign pre-vocational activities when indicated. Thought is given to the future life of the patient before ambulatory projects are selected.

The sanatorium at Monterey County Hospital is not large enough to warrant a full time librarian, therefore the circulating library is maintained by the occupational therapist. Much thought is given to the selection of books in addition to the usual novels, mysteries, and adventure stories. Reading is used as an aid to relaxation, to replace former recreational habits, or to provide practical information that may be of help in the adjustment to life after discharge. An annual donation from the county tuberculosis association enables the therapist to order new books each year, subscribe to magazines, and provide films twice monthly. A small radio studio has been established and is connected to the institution's radio wiring. Local as well as outside programs may be transmitted by ear phone to the patient. Educational talks by professional staff members have been broadcast weekly.

The tuberculosis pediatric ward usually averages from eight to twelve children. A full-time teacher is assigned to work with them. Ages, however, vary from one to twelve years and the occupational therapy department provides a recreation program throughout the year. During the summer months the program is enlarged to fill the gap in the regular school program. Activities are carried out in a separate room adjoining the ward. It contains a small work table, benches and cupboards. Equipment includes a selection

of educational toys, games, art materials, books, phonograph and records. An effort is made to make up for the lack of normal activities which is one of the many problems these children face.

CONCLUSION

Where a relatively few years ago the chief purpose of occupational therapy in the tuberculosis area was to provide the patient with so-called "busy work" during the long period of hospitalization, we now aim toward a more definite goal, mainly: that on discharge patients will have distinct plans for the future so that they will become independent and self-supporting citizens.

Orthopedics

KARL E. CARLSON, M.D.

Occupational therapy has various meanings to various people. In keeping with our discussion of the relationship of the physician to an occupational therapy department with particular reference to the prescribing of such activities, it may mean nothing to some physicians. To others, at the opposite end of the scale, it may be of major importance. You have already heard the opinions of quite a battery of experts concerning this problem this morning. You have had reviewed for you how and why occupational therapy is prescribed and utilized in neuropsychiatry and tuberculosis management. We have now reached the bottom of the therapeutic barrel and propose to review the matter of occupational therapy and its relationship to physical restorative efforts directed toward people with neuromuscular and musculo-skeletal problems.

In this area of effort, occupational therapy is not a diversional or recreational activity. The occupational therapist carrying out a prescription for this type of patient should be able to accurately interpret a muscle test and be sufficiently skilled in the use of his or her armamentarium to specifically direct the activities toward achievement of a specific goal or set of goals: increase in muscular strength of certain precise muscle groups, increasing range of motion of a joint, coaxing and persuading maximum function and coordination from a given limb or hand or combination thereof. She must have considerable engineering and mechanical talent in the devising of devices and equipment to achieve these goals. She should be able to survey the proficiency of a patient in performance of self-care activities and be able to take appropriate steps to close up what gaps may exist in this area. She must in some instances also be something of a vocational counsellor.

All of these things are involved in the occupational therapy prescription. We are all lovers of preciseness—but obviously cannot be precise. Prescription of an occupational therapy program for a given patient is usually not a precise thing, rather, it is usually a listing of what goal or goals are to be attempted, be it for increase in strength, joint range or fatigue tolerance with an occasional suggestion on the part of the "prescriber" as to the use of a particular item of equipment, precautions, etc. It involves considerable talk and exchanging of views between patient, occupational therapist and physician. So, from my standpoint, an occupational therapy prescription is not something which can be coldly calculated and listed. Too many people and personalities are involved.

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GUINEVERE WRIGHT, O.T.R.

This patient had onset of polio in October, 1952; was referred to occupational therapy in March, 1953. The prescription that Dr. Carlson gave was occupational therapy daily for one hour. He stipulated under that, that an opponens splint was to be made for the right hand, and it was to be used only when fatigue made writing unintelligible. Second, he asked me to check the activities of daily living sheet, and work on those items which the patient was unable to accomplish. Third, he listed "Plan program to strengthen the particular weaknesses of this patient and refer to the muscle check."

Now the steps we went through to attain these predetermined goals were:

1. As this man planned to return to the job he had before he contracted polio, and because this job required a great deal of writing, the opponens splint was made first.

2. A.D.L. sheet when checked, revealed the following weaknesses:

a. Inability to get up from a chair unassisted (this activity was worked on in physical therapy).

b. Inability to get to a standing position if he fell (which was always threatening as he had a very unstable gait and refused to use crutches or cane). Physical therapy also took care of this activity.

c. He was unable to completely dress himself to the point of buttoning shirt sleeves, due to the fact that there was muscle weakness as well as lack of finger dexterity. This we approached through the use of the Montessori board first, and then graduated to his own shirt, and it was mastered in a month.

d. Inability to tie shoes due to trunk instability and lack of finger dexterity. Montessori board used here also and when trunk stability was attained he had no problem with own shoes.

e. Inability to reach telephone on desk and hold while writing message due to weakness of left shoulder, elbow and hand. This was incorporated in plan for strengthening particular weakness and later a telephone was used.

f. Inability to drive car to work. This postponed until muscle power was sufficient so that it was less hazardous to himself and others. After he started driving, one problem which needed to be worked out was getting the car window rolled down. Weakness in left shoulder and elbow made operation of window very slow so that he couldn't lower the car window in time to make the proper signal. He was shown how to support his arm and use only wrist extensors and flexors to accomplish this.

3. A check of his muscle test done by the physical therapy department and a check of functional patterns done by me, revealed the following general weaknesses.

a. Generalized weakness in neck and trunk.

b. More generalized weakness in right leg with the exception of the quads (these were weaker on the left). A further complication was a tight heel cord on the right which limited range of motion in dorsi flexion.

c. The upper extremity revealed more weakness in left arm and hand.

4. Activities used in strengthening weaknesses.

a. Patient worked half hour standing for trunk stability and building work tolerance.

b. Suspension slings were used on left arm for one month due to scapular, shoulder and elbow weakness.

c. All hand woodworking tools such as a saw, plane, brace and bit, etc.

d. Wood carving tools, started by using mallet, as strength increased, no mallet, to emphasize elbow extension, shoulder flexion pattern in both arms.

e. We also used a Herald OT loom, which is a specially adapted floor loom with resistance on the heddle frames, first to plantar flexion, later to dorsi flexion. Resistance was increased from nothing to 10 pounds to plantar flexion; and from nothing to 5 pounds to dorsi flexion. These were accurate measurements. In relation to the upper extremity, the loom was hooked up with resistance to the extension pattern first on the beater. This also was built from no resistance to finally 24 pounds resistance in the extension pattern. We switched the loom to resistance to flexion pattern with special scapular adduction attachments in order to build up the scapular weakness and the shoulder weakness.

f. Treadle machine with bobbin winder attachment for increasing range of motion in dorsi flexion of right foot, and increase strength in left shoulder-flexors and finger flexors.

g. Knotting on an upright frame positioned for exercising shoulder flexors, abductors and horizontal abductors.

h. The last piece of equipment used by this patient was a treadle operated lathe. He started in a sitting position, but as his strength and stability increased we brought him to a standing position. I might add that he had one thought in mind on this lathe. When we were able to build the quad group to the extent that he was able to get on a horse by himself, he thought his rehabilitation would be complete.

THE PSYCHOSOMATIC APPROACH IN PRESCRIBING OCCUPATIONAL THERAPY

KARL J. DEISSLER, M.D.*

I would like to discuss three aspects of this problem: first, a definition of what this might mean, the psychosomatic approach to the prescribing of occupational therapy; second, an illustration by citing an appropriate case; and third, some remarks pertaining to the teaching problem resulting from the attempt to convey to students, even at the school level, the meaning of psychosomatic medicine.

The concept of psychosomatic medicine has developed under the impact of psychiatry during the last twenty-five years. Psychiatry in this respect, and especially in relation to the therapeutic situation, is the science which deals with interpersonal relations, and if there is a very difficult interpersonal relation situation then it is that between the prescribing physician, occupational therapist and the patient. In the first place it is a triangle situation which is difficult in all aspects of life, and equally difficult here. Second, the occupational therapist, in this situation, has so far been the neglected partner. The occupational therapist can be helped, I believe, even at the school level, if he is acquainted with the fact that interpersonal relations are fraught with dangers; that interpersonal relations carry certain loads from the past of the personal development of the people involved; and that there are some techniques which have been developed to deal with them quite adequately.

In other words, if the young occupational therapist is acquainted with the fact that it is quite normal to experience certain anxieties in therapeutic relations, if he is encouraged to verbalize them, if opportunity is given to him to have them discussed in a spirit of cooperation and helpfulness, he will gain an amount of freedom in interpersonal relations which cannot help but benefit his therapeutic efforts.

If occupational therapy is prescribed, whether you know it or not, whether you admit it or not, you prescribe, in essence, the therapist, not only the modality of therapy. You not only set the goal but you set a stage in which the personality of the therapist will enter, and possibly can enter crucially and decisively. Or a situation can develop in which the occupational therapist is hindered or suffers from the particular constellation far more than the whole effort warrants. I think a young occupational therapist should have the opportunity to go to whoever guides his efforts, and quite freely discuss the basic patterns in the area of difficulty that he has encountered.

It is quite popular to focus on the question of whether the patient has insight, whether the patient understands what goes on, whether the patient benefits from such understanding. It is comparatively rare that there is an acute awareness of how important it is that the occupational therapist, and of course the doctor as well, be aware of what goes on in them in the therapeutic situation; what motivates their choice of modalities; what motivates their eagerness, or lack of it, to work with one patient or the other.

To come to my example. I had been instrumental in securing the services of an occupational therapist in an institution where such a service was quite unknown. I had heavily invested in this project, in the line of knowing the right thing, recommending the best possible thing, and assisting in the selection of the occupational therapist, and I had made the grade, very much against the general feeling of the chief of the service. We secured the help of a very excellent young lady who was admirably prepared and very enthusiastic about the job, so I started looking around for a suitable, let's say "victim" for our efforts. There was in the ward a young woman who was, for some reason I don't need to go into, confined to bed in a supine position, and it was assumed that she would remain there for a considerable period of weeks. She was young, vivacious, outgoing. She was an intelligent person, very enthusiastic, a young student from a school of fashion design. Suddenly she found herself flat on her back with no prospect of doing any of the things which gave meaning to her life. We had a conference with her and with the physician, and it turned out that the only thing she could possibly do, under the circumstances, was to work on an overhead weaving frame. She wanted to transpose a certain picture she was very fond of onto this screen with weaving technique.

We went ahead, and things went very well—for a while. Then one morning, two or three weeks after she had started her work, the chief of the service came around and we wanted to show off what had been going on, and we did. He said, well, he never liked abstract art anyway, and this was just another example. I didn't

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expect much else, and I thought we had gotten by fairly well. But I kept looking at this frame and something disturbed me but I didn't know what it was. I could feel that this patient was very brittle in one respect, namely, that she had to establish herself through an achievement, she had to show that even flat on her back she still was somebody. I feared that we were very close to where we could have defeated our very best purpose in the most crucial possible way, namely by defeating the self-esteem of the patient.

One day we wheeled this patient with her weaving project, out on the sun porch and the glare was so great that I wore a pair of cheap sun glasses which had very poor color correction. And I immediately saw what was the matter. This patient was color-blind. Except she didn't know it, I didn't know it, the occupational therapist didn't know it. She was seeing in tones of gray and white and black, and this is what she was picking up out of this mass of colored wool she had. She put it on the frame and everybody who wasn't color-blind must of necessity have thought, this was just a mess.

So then I really went home to my room and sat down and thought. I called the occupational therapist over and we had a conference which lasted, soul-searchingly, for two hours. How are we going to make the next step? She took a textbook on vision which contained a chapter on color-blindness, and read it, and went to the patient and told her that we had a solution. She said, "For your problem" and conveyed to her that she was color-blind. The effect was absolutely magnificent. This patient became the most avid reader on optics, on the theory of the physiology of vision. In no time flat she induced everybody on the staff, from the charwoman to the boss, to come by and look at her color tests. This had an extraordinary outcome, because this girl, instead of returning to fashion design, became a fashion photographer. Once she had become very successful, having totally recovered from her other physical ailment, she told me that the fact that she was color-blind, the knowledge that she was, was a great help to her because she could visualize the probable black-white photographic effect by looking at an assemblage of clothing which nobody else would have thought lent itself to black and white photography. So you can see we got very close to destruction, but we made the grade.

Now the crucial member in this team was the young occupational therapist. This experience gave her the awareness of the extreme complexity of a relation which can exist as soon as you bring three people into a therapeutic situation.

I have been, for the past few years, trying to teach medicine and surgery to therapy students attending Mills College. I have felt that it was necessary to introduce the young ladies as early as possible to the concepts of psychosomatic medicine because I believe that this is something that an occupational therapist deserves to grow up in, and not something of which she should be left innocent.

The young ladies, of course, come to us after what is called a liberal arts education, which is something entirely in terms of the general, the principle, the plural. Of course we are trying to fit them for an education which will deal with the singular, the individual, the personal, the non-generic, and that is a very difficult turn to achieve in a short period of time. The young ladies are first exposed to the general atmosphere of a liberal arts education and then suddenly, without any adequate provision for a transition period, are exposed to the necessities and vicissitudes of instruction in occupational therapy.

As everybody knows, a curriculum is not what determines what has to be taught and what is being taught. If you want to find out what is being taught in an institution, put the curriculum away. Look at the national examination sheet. Any teacher who takes his responsibility seriously, of course, has to prepare his students so they will be able to pass this examination, no matter what the curriculum says. Now I have the impression that the occupational therapy curriculum has grown in a most extraordinary way. I understand this is the 38th convention. Well, probably for 38 years, at each convention, something has been added to the curriculum. It has grown —magnificently. I am not aware, so I might be mistaken about this, that anything has ever been taken away. Somewhere in the United States of America an occupational therapy patient falls off a chair, gets a nosebleed and somebody decides something has to be done which will equip the occupational therapist to take care of such emergencies. So before you know it, what has been added? First aid! Now under these premises it will be impossible to reorient the teaching of occupational therapy in such a way as to include the advanced concepts which really matter, which really will make the difference, later on, between a good occupational therapist and a poor one. It will be impossible to introduce these concepts as long as the national examination contains detailed questions about leprosy, sewage systems, diphtheria and other things which might be interesting, but, to me, do not look pertinent. I hope this doesn't sound impertinent!

Now this started with a definition, went through an illustration, and ended up with a diatribe. But just the same, I find some unexpected support on the issue from your illustrious speaker Dr. Hayakawa. Except that I'm going to paraphrase him a little bit. Instead of what

he said I would like to say, "If, as teachers, or occupational therapists, or psychologists, or physicians, we increase our capacity for self-insight, we shall have made a real start towards helping those who are in our charge." There is far too much emphasis on the insight of the patient and the insight by the physician and the therapist regarding the patient, and there is altogether too little on the necessity for self-examination and self-insight on the part of the therapist and the prescribing physician. I believe a real contribution can be made if psychosomatic concepts in this sense are applied to the prescribing of occupational therapy.

OCCUPATIONAL THERAPY FIVE YEARS LATER

SEDGWICK MEAD, M.D.*

PART I

The preceding discussions have made me realize that the setting in which I work is perhaps rather different from that in which many of you work. Our center runs the whole gamut from acute medical and surgical disease and in-patient care, to self-care, to out-patient care, and without the fragmentation among various departments such as orthopedics, neurosurgety and the like, which characterizes most general hospitals. Also it runs the gamut from pediatrics to geriatrics. This I say because it may have the disadvantage that our experience with certain specific groups such as the cerebral palsied may be somewhat diluted. But, on the other hand, I think that we have an integration of effort since all these things are under the direct supervision of rehabilitation and of no other department.

In 1950, I presented in Boston a paper by Alex Harell and myself titled "Failures in Functional Occupational Therapy."[1] Although the points raised were worthy of careful consideration, it seems to me now—speaking for myself only—that my manner of presentation was somewhat immature.

PART II

Today, I would like briefly to re-examine the topics discussed. The first was the problem of financing occupational therapy. Perhaps this should be discussed last rather than first, since if all our other problems can be solved this one will fall automatically into line. That is, if our patients value and accept occupational therapy as they should they will have no hesitation in paying for it. Or, to put it another way, occupational therapy is a part of rehabilitation. If rehabilitation's fiscal prospects are sound, so are those of its component parts.

Next we mentioned lack of respect for the therapist as a craftsman on the part of some patients. On this point I reverse myself. The argument has some merit perhaps but the solution does not lie in supplying instructors highly skilled in a single activity. Such a person has too many limitations on his usefulness, as shown by the Veteran's Administration experiment in so-called manual arts therapy. We must convey to our patients that the professional therapist is not necessarily intended to be a master craftsman and that her usefulness lies in quite another direction.

Again let me express my belief that the prevocational significance of occupational therapy ought to be limited to the revealing observations our therapists can make concerning patient skill and aptitude. In this connection I wonder why vocational counsellors do not make more use of such valuable observations? They are surely the result of some of the best aptitude testing one could do. I feel that we've made drastic mistakes in the past, particularly among physicians, in assuming that you know all that you need to know about a man's future work prospects as well as about his future medical care.

One of the original points discussed was the loss of professional stature created by combinations of functional, diversional and recreational pursuits. I feel again today that you do violence to good public relations when your shop looks like a church ladies' bazaar. It makes a sharp difference though who your patients are. What is suitable to a psychiatric unit is perhaps not appropriate to tuberculosis or orthopedic settings and these in turn not appropriate for children.

Conflict of patient and therapist over choice of activity was discussed in our paper. This is still a problem. How much discipline should we physicians impose in prescribing occupational therapy? Perhaps I have not personally taken a stern enough posture in insisting that occupational therapy is as important as anything else we do in our center and not to be discarded at the patient's whim. Undoubtedly I have sinned repeatedly in failing to orient the patient sufficiently as to the values he is to expect from occupational therapy.

Let me say that with highly competent personnel one does not have too much trouble with patient rejection or arguments over craft selection. In our center our occupational therapy department has such stature that refusal of a patient to participate immediately tells us that he is floundering in some sort of internal turmoil—

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adjustment to his disability perhaps, or fear or dislike of association with other disabled persons. We notice the same behavior in some other therapies. After a period of adjustment our patient may willingly participate again. Doctor Harell and I were guilty of a resounding generalization concerning the ineffectiveness of functional occupational therapy. We cannot improve matters much now by generalizing in the opposite direction. It matters decidely whether the diagnosis is correct, the medical direction sure, the personnel competent and the objective realistic. When these conditions are fulfilled I would say after these five years that functional occupational therapy is as effective as anything we have in medicine.

I am still convinced that providing splints, supports and adaptive equipment should be a prominent function of occupational therapists. Doing checklists of self-care activities is a tedious job but an absolutely vital and permanent part of the patient's chart. I have devoted years of thought to better methods of measurement of physical performance. The more elaborate these methods become the less they can be translated into terms of everyday use. In the end what we want to know is whether the patient can perform all services of personal care or not; if so, whether he can work at some gainful enterprise; and also whether some further enjoyment or morale activities can be undertaken. Our own self-care list is rather simple—only one page long. It probably could be improved but we are not sure how. This information—much more than joint measurements or muscle checks—really means something to an insurance adjuster or a lay board. We should take care to interpret such results accurately moreover. They, like psychological tests, are not measurements of the patient's *capacity* but rather of his *performance*. The two do not always necessarily coincide.

PART III

Now that I have recapitulated these points, I would like to add one or two additional thoughts about the present status of occupational therapy. The name is misleading to some patients but a better one is not available. I conclude, after these five years, that the profession is so securely established and so firmly a part of medical care that its advocates can now relax and be a bit less spunkily defensive in its behalf. Its accomplishments are increasingly impressive. In the area of professional ethics, for example, I have never encountered or even heard of a single offense by an occupational therapist. I wish the same could be said of all staff components in rehabilitation and of all physicians for that matter.

When you are interviewing young persons interested in going into the field, I wish you would find out what impels them to do so. I would be wary of those who say that they want to "do good and help people." That comes perilously close to being a "do-gooder." We want humane and kindly therapists but not persons who are confused about their role in life.

I know that the occupational therapy curriculum is both a liberal arts education and a professional career training but I assure you that it is a mistake to found any new schools apart from medical centers. It is not necessary and perhaps not desirable to have physicians as heads of such schools. But confidence in handling patients comes only from long association with the health care professions.

The removal of occupational therapy from our center would leave an enormous gap. It is the unifying agency which provides the final practical details and know-how the patient needs in order to make use of his newly acquired neuromuscular patterns and strength. For housewives we concentrate on homemaking with the necessary adaptations of the disabled. For the injured workman we provide facilities for work-hardening, increased range and strength and skill, optimism and good emotional adjustment. For children our shop has nursery school values in addition to its other properties. Note that in small children the boundaries between intellectual and physical performance are blurred and so are the demarcations between physical therapy, occupational therapy and education.

In our catastrophically disabled young adults and teenagers, occupational therapy provides the most important contribution of all those available in the center. When one is limited to feeding oneself, shaving, reading and the like these simple acts take on an undreamed-of importance. This importance is only partly the actual value of these achievements to the patient. Their significance to him lies also in the fact that someone went to the trouble and effort to teach them to the absolute limit of human endeavor.

My final point I have already touched on briefly, and Dr. Elkins did also, and have emphasized in talks to physicians on several occasions. This is the analytical function of occupational therapy. Dr. Elkins mentioned that diagnosis and treatment go on concurrently. Whether the patient has tuberculosis, a crippling disability or a psychiatric illness, the occupational therapist is in a position to make highly skilled observations concerning his reality adaptation, emotional maturity, family stability and the like which can be invaluable to the directing physician in planning treatment.

1. Harell, A., Mead, S. "Failures in Functional Occupational Therapy," 1950. *Archives of Physical Medicine*, Chicago, Illinois.

PSYCHODYNAMIC ASPECTS OF OCCUPATIONAL THERAPY

LEONARD V. WENDLAND, Ph.D.*

An understanding of the role of the emotions in illness is important in the overall treatment program of the patient. Until very recently the basic interest in illnesses has been the etiological factors and the attempt to prognosticate the final outcome. However, the various members of the treatment team are now aware that emotions play a significant part in the overall program.

The purpose of this discussion is, first, to give a brief outline of some psychodynamic principles which operate in behavior per se; second, to deal with the emotional reactions of the individual when he becomes ill or injured; and third, to present specific psychodynamic factors in the occupational therapy program and to determine how this program can be of value, not only orthopedically but also psychotherapeutically.

There are basic psychodynamic principles which operate to make all behavior meaningful. Behavior is the organism's attempt to rid itself of painful tensions, and from the point of view of the individual all behavior is meaningful, even though we are unable to understand or to point out the causes for that behavior.

There are several levels of need common to all individuals. These needs are basically the same regardless of culture, race or nationality. When these needs are not met, the organism is thrown into a state of dis-equilibrium, causing a certain amount of discomfort or stress. The organism, seeking to rid itself of this stress and to return to a state of comfort or equilibrium, is goaded into behaving in such a way as to accomplish the riddance of this painful tension. To more adequately understand this problem, I wish to discuss five probable levels of need in the human organism.

1. *Physical needs* are of course basic to the organism and consequently basic to the personality itself. There are certain so-called unlearned tension states with which the organism is born. The organism does not need to be taught how to become hungry, how to become tired, the need for activity, elimination, and so forth. These are unlearned tension states, which occur rhythmically and periodically in each organism. When anything happens to that organism to impede the rhythmic satisfaction of these unlearned tension states, the organism is thrown into a state of stress. Very often this will also mean that the organism reacts emotionally. At least one theory of emotion implies that it is the means of summating all of the efforts of the organism toward the protection or the survival of the organism itself.

2. *Emotional or psychological needs.* This second level of need is the bedrock of mental health and emotional security. Emotional security is an internal state of well-being and becomes a part of the individual. The child unconsciously identifies himself with his parents because they satisfy his physiological needs. As a result of this identification the child experiences affection for the individuals who meet those needs. This is undoubtedly what we call the genesis of love.

One of the psychological needs is the need to belong. When the physiological and safety needs of the child are adequately satisfied, the feeling of belongingness tends to be satisfied as well.

Self-esteem is another psychological need. The individual has a need for the respect and admiration of others. The need for self-esteem is satisfied in part in the life experience of the child by what we call praise. In the process of being praised, the child gains a concept of himself of having worth, while the child who is not given this recognition is likely to grow up feeling inadequate, frustrated and threatened by his environment. As a result he may compensate for these lacks in less socially acceptable ways.

3. The third great need is *social* in nature. The human personality develops in the process of interaction with other personalities. Consequently the growing personality of the child very often takes on the color, cultural attitudes, opinions, and prejudices of the personalities with whom he comes into contact. Thus the child tends to become very much like his parents.

4. The fourth level of need is *intellectual.* In man there is the need to know and understand. One aspect of this need is expressed by curiosity. We live in a culture which places value on "knowing." Consequently, many of us are undoubtedly motivated and stimulated to read, to expose ourselves to new learning situations, to

*Respiratory Center for Poliomyelitis, Rancho Los Amigos Hospital, Hondo, California. The Respiratory Center is aided by an annual grant from the National Foundation for Infantile Paralysis, Inc.

jar ourselves out of the complacency of our own professions and our own work situations so that we can at least appear to be enlightened.

5. The fifth level of need is what may be called the *wholistic need.* This is equivalent to the need for organization, the need for systematic integration of the various aspects of our personality. Consequently, the child or immature individual will often hold one system of values and behave in a certain way one moment, and the next moment behave quite differently or even in a contradictory fashion, and find no incompatibility in this inconsistency. However, as the individual matures, this process of integration comes into effect and the various parts of the personality structure become meaningfully related.

As we proceed with a consideration of some of the psychodynamic aspects of occupational therapy, we shall see that the relationship of the therapist and the patient will be affected to a large extent by the patient's concept of the frustrating nature of his illness or accident. Therefore, in dealing with the patient we must keep in mind that some of his needs are probably not going to be met. Consequently, in addition to being in pain and discomfort, the patient is also being frustrated.

During the child's developmental process he has periodically experienced various needs. He likewise has discovered, or has attempted a variety of means for satisfying these needs. During the early years of the child's experience, the behavior which tended to bring about a state of well-being and satisfaction may have been due primarily to chance, with a minimum of understanding between the behavior and the reasons for its satisfying end result. However, with maturation and with repetition of certain forms of behavior, the growing personality begins to depend upon certain forms of behavior for the satisfaction of his needs.

Our second major task is to discuss what the disabling illness or accident does to the personality structure, and the normal functioning of the psychodynamic process. People have different capacities to withstand stress and frustration. Illness is something added to the already existing emotional problems of everyday life. Thus, when a patient is admitted to the hospital he may not only be in a state of severe physical pain, but likewise undergoing emotional stresses.

When a patient becomes ill he takes with him his pre-morbid personality characteristics and structures. If the individual, prior to the onset of his illness was a well-adjusted person, we would anticipate that he would react in a more mature fashion to his illness than should he have been somewhat immature, with a low frustration tolerance threshold. The nature of the pre-illness personality will determine to a large extent the reactions of the patient during the illness.

One of the factors which tends to modify the manner in which the illness affects the personality structure of the individual is the age at the onset. The concept which we have of ourselves is a product of interaction and experience through our life span since birth. We are not born with a "self-concept." We are not born with a personality. The infant, by virtue of his highly developed nervous system, becomes more and more interested and aware of what is taking place about him. Gradually a concept about himself begins to develop. This self-concept rarely if ever becomes static, is never quite the same from one year to another, although as we grow up it tends to become more consistent. Part of this self-concept involves what we might refer to as a "body image," a concept of what our body looks like. If, during the early years of life we have learned that we have the kind of body, the kind of coordination, ability or strength in our physical structure which makes it possible for us to gain recognition, self-worth and praise, then we may have developed a certain amount of dependency upon our body structure for ego satisfaction. On the other hand, if we had been born with a deformed or weak body we might have learned early that we cannot depend upon it for ego satisfying experiences. It seems to me that this is of paramount importance to all therapists and all persons dealing with patients, especially those patients who are deformed, paralyzed, or in the course of a progressive deteriorating type of neuromuscular disorder.

We are unprepared to deal with the emotional aspects of the ill or paralyzed individual until we have some conception of what the illness means to this individual. How does it affect his self-worth, his projected satisfactions for the future, his vocational goals? In the attempt to maintain and enhance the self-concept, individuals will learn that by certain means the self-esteem tends to be raised. There are different ways in which this may be accomplished, such as through mastery over people, through implied superiority, and through the mastery of things rather than people, in which impulses for creating or destroying can be acted out without the threat of social disapproval.

The onset of illness, resulting in considerable involvement of the child from two to six, probably represents a greater threat to the development of the self-concept of that individual than in an infant. In the age of three, four and five, and in some cases earlier, there develops some consistency in the manner in which various parts of the personality structure are related; thus there is a developmental process taking place during these years which results in a self-concept. An illness, or a severely disabling disease at this state

probably represents a greater threat than had it occurred at the age of six months.

If the childhood years are important in terms of adjustment to illness then the adolescent years are of real traumatic significance in terms of adjustment to disability. I think those of us who have worked with adolescents who have been severly paralyzed will agree that they go through an exaggerated traumatic emotional experience in adjusting to their disability. Adolescents are in a period where it is of paramount importance to be like the rest of the gang, and this includes the body structure.

Adults will react to illness or accident resulting in handicaps in a variety of ways, depending on the degree of maturity they have. Many of the adult patients admitted to our hospital can be described as being very compulsive, the kind of people who have their eight hour a day job, go to night school to pick up a few extra courses, and build their own houses on week ends. There are some people who have the physical equipment which makes these accomplishments a possibility. Then there are others who have an equal need to satisfy these cultural demands, but are inadequately equipped for it, and so constantly live under a state of tension and stress. Today, in the modern concept of the etiology of many diseases, we need to incorporate the idea that there are certain diseases which are partly the result of tension, of living constantly under tension. It has been suggested by some who have worked with poliomyelitic patients for many years —and this is only a hunch—that possibly the stress, or the ability to tolerate stress and the need to get ahead—this whole system—is one of the etiological factors for poliomyelitis.

I want to mention briefly some specific things I have observed in occupational therapy which I think have significance from a psychodynamic point of view. First of all, the relationship which exists between the therapist and the patient is of prime importance from the psychotherapeutic standpoint. In certain kinds of occupational therapy this relationship may be the most valuable aspect of the treatment program. The significance of the relationship between physician and patient, psychologist and patient, occupational therapist and patient, or physical therapist and patient cannot be over-emphasized. I wish we had some technique of knowing whether the healing, if you want to call it that, which is accomplished in this relationship is due to the medicines or the modalities used, or the relationship. The kind of relationship which you set up with the patient will determine to a large extent the healing nature of this relationship. The relationship itself, in some cases, may be much more important than the modality, the medicine or the techniques.

It may be generally stated that a desirable therapist-patient relationship implies a working rapport between the patient and the therapist. This relationship is characterized as one in which the therapist is accepting and permissive of the feelings and attitudes of the patient, but is secure enough in himself to satisfy his own basic emotional needs without capitalizing upon the patient-therapist relationship for such unmet needs. There are several characteristics of undesirable patient-therapist relationships.

1. *An emotional relationship.* If the therapist has unmet emotional needs he will unconsciously seek to satisfy these needs and he may discover that this may be accomplished in the patient-therapist relationship. When a therapist finds it necessary to consistently spend extra time with a patient in addition to the scheduled therapeutic hours, it might suggest that the relationship meets some emotional needs of the therapist to a greater degree than any other type of experience available at the moment. The therapist must be sufficiently secure to deal therapeutically with the hostility, dependency and other emotional needs of the patient.

2. *A competitive relationship.* If the therapist is an insecure person any attempt on the part of the patient to demonstrate choice, to make suggestions or criticize the therapeutic program, or to express open hostility toward the therapist, may precipitate a retaliatory reaction on the part of the therapist.

3. *Sagging ego.* The dynamics operating here might be very similar to those of the parent who gains tremendous ego satisfaction in the performance ability of the child. This might be accomplished by the therapist taking particular interest in the finished product which the patient shows for his therapeutic efforts. This relationship may also be expressed when a patient is transferred from one therapist to another, and the therapist finds it difficult to relinquish his control and individual interest in the patient.

The nature of the therapist-patient relationship is a dynamic one and is affected by the psychodynamic processes which have immediate priority in the hierarchy of needs of the patient and therapist alike. The therapist should be aware of his own personality needs in order to better understand his role in the relationship.

It is important for the therapist to recognize that the patient's reaction to him is significantly affected by pre-illness conditioning. If the patient sees the therapist as an authority figure, he will feel toward the therapist as he has felt toward other authority figures. If the patient has had a predominantly large number of relationships in which he experienced rejection or other ego-deflating experiences, he will probably ap-

proach a new therapeutic relationship with a good deal of caution.

The patient may have been conditioned by a series of experiences through which he has learned that new relationships are often painful. For a male patient this may go back to rejection feelings related to members of the opposite sex. Then, if his therapist happens to be a female he may project these feelings of rejection onto the therapist and perceive her as one who will likewise reject him. This projection introduces conditions into the relationship which will need to be overcome before the relationship can be therapeutic.

The therapist can modify his attitude toward a patient only within certain limits. If after repeated efforts a therapist is unable to establish a good working relationship, a reassignment of the patient may be desirable. Tolerance of a patient is not enough, acceptance is essential.

The therapist also has a responsibility in helping the patient in the socialization process. One of the destructive aspects of the severely handicapping illness is that to a large extent the means of socialization which the individual has learned in the past may be lost. The patient nevertheless has social needs and desires and enjoys socializing with others. A group treatment situation offers patients an opportunity to relearn ways and means of satisfying these social needs.

Going to the occupational therapy clinic in itself may have variable meanings to patients. To one it may mean, "I am getting better, I can leave the ward, I can now be treated in the clinic." To another it may mean, "I will lose the therapist who has been working with me individually. I will now be lost in a group of patients."

Therapeutic conversation is also an aspect of occupational therapy. Contact with patients usually involves conversation. Nor can you maintain a good relationship with the patient and ignore the feelings which are being communicated by what he says. I think we must keep in mind that what is said is not nearly as important as the feeling which is communicated by the words used. Consequently, when a patient makes some comment or asks some question, if you react purely on the intellectual level to what is said, you may fail to perceive the significance of the communication. However, if you develop a sensivity to the feelings which underlie what is said, and then react or respond to the patient on the basis of that feeling, I think you will find that you are carrying on not only occupational therapy but that you are also establishing the kind of rapport which is also psychotherapeutic.

Another psychodynamic aspect of occupational therapy is that it provides the patient an opportunity to be creative through the use of a variety of modalities. In an orthopedic setting the prescription will usually define the purpose of the treatment program. The treatment objective can be accomplished by a variety of means. It places upon the occupational therapist the responsibility of planning the treatment in such a way that the objectives are realized. There is a tendency for therapists to have favorite modalities for various treatment plans and these may be set up without taking into consideration how the patient feels toward the particular modality. It often requires real ingenuity on the part of the therapist to be able to suggest several alternative treatment plans, utilizing a variety of modalities, and then permit the patient to choose which he would like to do.

The modalities, in addition to their worth as treatment of the orthopedic patient, may also provide the patient with a means of expression. Activities of various sorts are utilized by most people at times in the expression of feelings. Many of the avenues of expression of feelings utilized by the patient prior to his illness may now be impossible or denied him because of his hospitalization. The activities provided through the treatment program thus may have conscious or unconscious meanings to the patient.

The acquisition of a severe disability is often seen by the patient as a threat to the concept of worth. Occupational therapy provides an effective means through which the patient's concept of worth is re-established or reinforced. To facilitate this process it is important that the first tasks given to the patient be those in which he must invariably succeed. After the patient has been provided with a series of successful short term experiences he should be permitted to participate to a greater extent in the planning of his treatment program, which in turn will give him added self-confidence. With this opportunity to make a choice, the patient has, first of all, an opportunity to experience his independence which is something few patients have a chance to do in a hospital setting. Secondly, the planning of the treatment program with the patient gives the therapist an opportunity to talk with the patient. His selection may reflect an activity which has equal value to him and may thus tell you something about him as a person. Thirdly, the patient may have some good ideas about what he might do to accomplish the therapeutic goal. This of course implies that the therapist has a treatment goal and is willing to discuss it with the patient.

In this paper we have tried to do the following: (1) deal with some of the basic psychodynamic principles of behavior, (2) mention some things relating to the meaning of disability to the patient, and (3) suggest some of the psychodynamic aspects of occupational therapy.

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